DES moves to close Ulster grant loophole

by Ngaio Crequer

Proposals to exclude Northern Ireland teacher training candidates from applying for grants in England and Wales are being urgently considered by the Department of Education and Science.

At the same time local authorities on the mainland are waiting for confirmation from the DES that they are right to interpret that current regulations allow the award of such grants.

The discovery of a loophole in the rules, allowing students to circumvent the official policy of restricting the number of places for Northern Ireland students, has embarrassed the DES and confused L.e.a.s.

In the autumn of 1977 Lord Melchett, Northern Ireland Minister of State, with responsibility for education, announced that from 1978 awards from Great Britain would only be available for courses not available in Northern Ireland, or for which the province had a special need.

But in January of this year careers staff at the University College of Wales, Aberystwyth, discovered a loophole. The regulations state that a student admitted to a degree course is eligible for a mandatory award if he or she has lived in the United Kingdom for the three years preceding the academic year in which the course begins.

Therefore an Ulster-domiciled student who has lived in the United Kingdom for three years gaining a first degree must get a grant from a mainland local authority, even if the Northern Ireland Department of Education is not prepared to provide one.

The loophole is being treated as a drafting error but nevertheless its discovery has caused uncertainty in the minds of local authorities and students alike. The DES is anxious to amend the regulations, and the target date is January 1979. A spokeswoman at the DES said this week that an announcement on the change is imminent.

The discovery of the loophole has caused a rush of inquiries by students at Queen's University, Belfast. Competition for graduate teacher training places is very tough. There were 715 applications for 90 places in the university for October 1978 graduate teacher training entry. There were only 180 places available in the whole of the province.

Mr Norman Lloyd, senior careers adviser at the University College of Wales, Aberystwyth, who discovered the loophole, says that if it is closed there will be gross discrimination against some intending teachers from Northern Ireland.

"The Department of Northern Ireland is taking a very narrow view. It means that Ulster-domiciled students, who take their degree in England and Wales, and who wish to teach over here will not be able to do so because of the limitation of awards in the province."

On-job training emphasized by Finniston after foreign trip

by Robin McKie
Science Correspondent

An engineering degree is not a sufficient qualification for a graduate working in industry and there must be greater emphasis on on-the-job training among British companies. This is the unanimous view of the Finniston committee which is presently inquiring into the state of manufacturing industries in this country and follows recent trips to the United States, Japan and Canada by committee members.

There is now strong debate in the committee over the value of the recently-introduced enriched four-year engineering degrees and over the merits of establishing an accreditation system, similar to the United States method of scrutinising courses to test their academic standards.

But committee members rejected reports this week that any decision had been made on the question of the registration and licensing of engineers. A sub-committee under Lord Will Howie is presently considering this issue and is not expected to report back until later this year.

The Finniston enquiry is expected to propose ways in which practising engineers can update their knowledge continually to allow industry to keep abreast of modern technological developments. It is understood the members were particularly impressed with a system that has just been introduced in Iowa where engineers must give evidence of constantly updated skills to ensure continuing registration.

On the question of industrial training for graduates, members were also impressed by systems operating in Japan. But the issue of accreditation is still not resolved.

Grants plan for Cabinet

by Patricia Santinelli

Major local government proposals for a maximum £7.50 award for full-time further education students are to be discussed by the Cabinet shortly.

The proposals, which would cost between £76m to £120m a year, were put to Mrs Williams, Secretary of State for Education, by representatives of the Council of Local Education Authorities and the Welsh Joint Education Committee this week.

The meeting follows the Government's decision to introduce a national scheme of mandatory means-tested awards for relevant courses in full-time further education by September 1979. This is designed to increase the number of young people from poorer families who can stay on in education.

The £7.50 award, together with the new £4 family allowance to be introduced next April, would bring the grant up to the present supplementary benefit level. If adopted, the scheme would greatly increase the age participation rate in full-time further education and would probably lead to a withdrawal of discretionary awards.

The lower estimate of £76m, which includes the costs of the awards, extra teachers and administration, is based on the assumption that awards ranging from £1 to £7.50 would go to about 213,000 16 to 18-year-olds including an estimated 26,000 who would have otherwise given up their studies.

It is thought that savings of £12m in supplementary benefits could be deducted, leaving £64m but that an extra £38m in capital cost would need to be spent in the first year.

The higher estimate of £120m, £99m after deduction of supplementary benefits, is based on an assumption of 250,000 award holders including 64,000 students who would not have been able to stay on without a grant.

These proposals will need to be ratified by legislation and may not be adopted by the Cabinet in their present form. Further discussion is to take place between Mrs Williams and representatives of CLEA and WJEC on the details of a national scheme, particularly on the question of which courses will be eligible for the award.

MP wants London payment inquiry

continued from front page

One of the changes is that for the first time the university will have a full-time salaried vice-chancellor, appointed for a four year term, instead of, as now, a part-time vice-chancellor appointed for one year.

Inquiries reveal that the conflict stemmed from the question of where his, the principal's, authority ended and the vice-chancellor's began under the new statutes.

It is believed that Dr Willson did not want to be just a private parliamentary secretary to a federalist vice-chancellor. He wanted no role in decision-making concerning the whole of the university, but rather a strict responsibility for the administration at the centre. He feared that a more general role would only lead to bring him into conflict with the full-time vice-chancellor and the university senate.

Dr Willson wanted to be a local manager with a defined administrative load rather than just another top bureaucrat in a sprawling federal university.

Ironically he may have resigned because he wanted to limit the functions of his job rather than seek more power over a wider field, with ambiguous status. It is understood there was a suggestion that the title "principal" be dropped because of the image it conjured up.

It is an open secret at the university that the conflict has been smouldering for about a year. There had been some tension about the new proposals between members of the court and the principal.

In July, 1977, the committee which appointed the principal was reconvened to try to resolve the differences of view on the principalship. It was referred to the joint standing committee of the academic and collegiate councils in February and March of this year.

But it could still not be resolved and the resignation was accepted at the court meeting of June 7, "on terms agreeable to the court", and senate informed at its next meeting. Since then figures of between £40,000 and £100,000 have been quoted, unofficially, as the "agreeable terms."

Both the vice-chancellor, Sir Frank Harthey and Dr Willson have refused to comment.

The Association of University Teachers has linked the issue of the redundancy of a senior lecturer, Mr Michael Kendall, who was terminated after the unit on which he had been working was disbanded. The university has agreed to reconsider the case.

Mr John Akker, AUT assistant general secretary said: "We are waiting to hear from the university about the case of Mr Kendall, who was declared redundant after 6 years service as a research officer.

"Many of our members have written to AUT headquarters expressing that it was unbelievable that the university should give such a reputation to the principal by apparently resigned while at the same time statutory redundancy procedures were invoked against a permanent member of staff."

The comptroller and auditor general's department maintains a continuous audit of university expenditure. A MP may raise a matter in the department's accounts he may then be looked at by the Public Accounts Committee or the Commons Committee on Nationalised Industries. In August, 1976, the Committee criticized the university for its handling of a computer-oriented computer operation.

Technical book publishers warned to curb prices

The publishers of technical books have been warned by the Price Commission to hold back price increases for the next few years. In a report on the publishing and distribution of books, the commission revealed that seven of the 29 large publishers in its survey sample accounted for 81 per cent of the £94 million sales of technical books in 1975.

The sale of the books reported showed an average of 11 per cent of these seven companies' turnover, ranging from 19 per cent to almost 100 per cent. The other 22 publishers sold few technical books.

In 1975, the net profit of the two groups were similar but the next year, the seven technical specialists achieved a net profit margin twice that of the other 22. This increased again in 1977, while the others showed little change.

"We were concerned that technical books appeared to have contributed disproportionately to the recent increase in profitability of the seven firms", the commission adds.

"We have considered whether we should make an indication that the Secretary of State should restrict the prices of technical books, but concluded that a generalized approach of this kind would not be appropriate in the particular circumstances of the trade."

The commission adds that while profits from technical works seem generally higher than those from other books, not all technical publishers have increased their prices. "Nevertheless, it could reasonably exercise restraint in future prices of technical books for a considerable period."

The report reveals that 41 per cent of sales were technical books for all purposes, were from exports, about 1 per cent for other languages. However, there was little or no profitability between exports and home sales.

The report concludes that the prime objectives of the book publishers should be subject to investment. The commission intends to take a selective approach of this issue in future."

But in a statement this week the Publishers Association claimed publishers have shown "exemplary restraint".

The association says: "One per cent of the Price Commission examination the average price of all books sold in the UK and in the sample available to it increased by approximately 6 per cent while the Retail Price Index increased by 88 per cent.

"For technical books the increase was only 49 per cent. Since then, we are publishing the worst of the recent recession, this is a creditable price restraint over this period."

Dr Richard Pankhurst, grandson of Mrs Emmeline Pankhurst, the suffragette leader, attended the opening of an exhibition in London this week to mark the golden jubilee of voting rights to women. The exhibition, "Liberty, Equality and Sisterhood", is at the Whitechapel Art Gallery.

AMA thumbs down to Oakes proposals

continued from front page

report and leave it to the association's policy committee, which has traditionally been more hostile to the Oakes recommendations, to decide its attitude in July.

Should the policy committee reject the report the Government will have to decide whether to press ahead with its proposals against the wishes of both the AMA and the Committee of Directors of Polytechnics.

A key factor will be the unanimity of Labour-controlled authorities in favour of the report and a three-way split in Conservative attitudes. The Conservative-controlled Association of County Councils has accepted the report, largely because of fears that the alternative scheme of inter-authority recoupment payments favoured by its partners in the metropolitan councils is likely to result in a net loss of money by the shire counties, where there are fewer polytechnics.

Tory Parliamentary spokesman, however, have been outspoken in their opposition to the Oakes package. Dr Keith Hampson, MP, a junior Conservative spokesman, has called for an end to local authority control of public sector higher education.

TUC rejects growth as aid to mature

The TUC has rejected proposals from the Association of University Teachers for an expansion of higher education as the key to increasing the number of mature students.

The AUT, in response to *Higher Education in the 1990s*, argued that a general expansion would provide not only more places for young working class people but would increase the length of some courses and stimulate research activity.

But the TUC general council decided this week that given the imbalance between young entrants and adults, it would continue to press for radical changes to increase the places for academically unqualified mature students. It wants reform in the design and content of courses to help adults.

The TUC wants the Government to adopt Model B but with an immediate increase in the number of mature entrants with plans for a gradual escalation of their intake.

OU link with St Andrews

The senate of St Andrews University is being asked to approve an Open University student degree course in Scotland.

The proposal was agreed at a joint meeting of the general council of St Andrews last Saturday. It is prompted, Dr Steven Wheatley, the university principal, said, by the success of the Open University in Scotland.

NEXT WEEK

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The future for Rhodesian education
Engineering in the Shetlands

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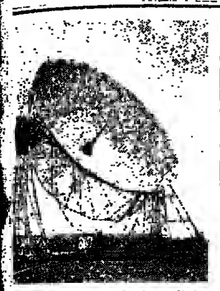

The Science Research Council has given £3.1m to Jodrell Bank to build two new radio telescopes which will be linked to existing instruments there, including the famous 250ft dish receiver above. The system, operated by computer, will be used for fine resolution studies of quasars and radio galaxies.

DES determined to push ahead with Oakes Bill in autumn

by Peter Scott

The Government is likely to introduce a higher education Bill into the next session of Parliament if Labour wins the expected general election.

The Bill would allow the major recommendations made in the Oakes committee report to be implemented. It might also give the Secretary of State new power to increase the number of courses for which students would be eligible for mandatory grants.

Ministers at the Department of Education and Science have still not taken a final decision on introducing such a Bill. The alternative is to present a much more comprehensive education Bill covering matters concerned with schools as well. A final decision will probably be made in late July or August.

However, they are likely to choose a short, sharp Bill confined to higher education for three reasons. First, there is an urgent need to put the industrial scholarships scheme, introduced this year, on a proper statutory footing. Second, they fear that a large and cumbersome Bill might be objected to by the Government's Parliamentary managers.

However, the most important reason is that there are still deep divisions of opinion within the Government and the Labour Party on some of the subjects that would have to be included in a larger Bill, such as parental choice and the Taylor report on school governors.

But Mr Oakes, the Minister of State at the DES, is believed to feel that his own report is much less controversial. He has recently met both the Parliamentary Labour Party's education committee and the education subcommittee of the party's NEC. On both occasions he was given a much easier ride by potential critics within the party than he expected.

However, the recommendation that the proposed national body could take over polytechnics and colleges at the request of their maintaining local authorities will not be included in any Bill. It is now acknowledged that this was a tactical mistake.

But the bulk of the Oakes recommendations are likely to be implemented with little change in spite of ramblings of dissent from the local authorities, in particular the Association of Metropolitan Authorities. Ministers are believed to favour pushing ahead as quickly as possible with the legislation.

There are also fairly firm plans to establish a shadow national body this autumn much earlier than expected. A shadow chairman, who would be full-time, would be appointed at the same time. The proper national body, with a very similar membership to that of the shadow body, could start work as early as autumn next year.

The DES is also expected to publish a White Paper sometime next year on the future of higher education, rather later than Mr Oakes hinted in a recent speech. A Green Paper is very unlikely because both ministers and officials feel that the discussion document *Higher Education into the 1990s* has provided an adequate opportunity for consultation.

Although the DES has not yet received all the comments on its discussion document, there is already disappointment that so few organizations have considered possible solutions to the short-term "bulge" in student numbers in the early 1980s.

Colleges seek greater say on policy

by John O'Leary

The colleges of higher education are making a double bid for greater influence on national education policy. They want one voice to speak for the maintained sector of higher education on appropriate issues and have asked for representation on the national body proposed in the Oakes Report.

One meeting has already taken place between the college principals and the Committee of Directors of Polytechnics and another is planned for September. Although there is no question of a merger between the CDP and the Standing Conference of Principals and Directors, there are hopes of a liaison committee.

Mr Neil Merrin, principal of Ealing College and secretary of the Standing Conference, said both bodies recognized that there were significant differences in the nature of their institutions, which would inevitably present problems for a jointly united approach.

However, he said: "There seems to be general recognition that a number of problems can be resolved jointly."

Little significant progress seems to have been made at the initial meeting and the CDP is anxious not to exaggerate its importance. Mr David Bethel, its chairman, said the CDP had always welcomed informal discussion with a wide range of organizations and the exchange of views was part of this established system.

Regardless of the success of the talks, the college principals make it clear in their Oakes Report submission to Mrs Williams, Secretary of State for Education, that they are determined not to be left out of any new arrangements for the maintained sector.

The Standing Conference welcomes the report's proposals in general terms and strongly supports the principle of a balance of institutional membership, reflecting student numbers, on the national body. To allow the voice of all types of institutions to be heard, the principals suggest that nominations should be sought from the Standing Conference as well as the CDP.

The principals advocate leaving the definition of roles for the proposed regional bodies until after the national body has been consulted. They are concerned that there should not be "just a religiling of the existing pattern" and suggest that the Department of Education and Science should issue guidelines for the nature and extent of consultation.

NELP bucks Government on overseas student cutback

by Lisa Wood

North East London Polytechnic is to ignore a government call to cut its overseas intake back to 1975-76 levels.

A resolution stating the polytechnic's intention to keep its quota of overseas students to the 1977/78 level has been passed by its governing body.

But Dr George Brosan the director, said: "I am quite certain that this resolution of the governors was in no way intended to be an act of defiance against the memorandum issued by the Secretary of State." It was, rather, a matter of "practicalities".

The resolution means that the polytechnic intends to keep to its existing number of approximately 1,000 overseas students and not drop back to the 1975-76 level of 800. The government's circular 8/77 has called for the reduction to the 1975-76 level by this autumn, although Mrs Williams, Secretary of State for Education, has recently said than she is prepared to allow some polytechnics to reduce their numbers over a period of three years.

Dr Brosan said the resolution would be put to the polytechnic's joint education committee next Friday. "They will have the final say", he said. He declined to say whether the resolution had been passed unanimously by the governing body. It was proposed by a statement in which the governing body expressed its regret at the government's need for quotas and noted the possible adverse effect this policy could have on cultural relations and trade.

Applications for 1978-79 have increased by about 15 per cent from both overseas and indigenous students.

The Polytechnic of Central London, which was threatened with having its block grant cut by £50,000 by the Inner London Education Authority, is taking immediate steps to cut its overseas students' intake back to the 1976/77 figures, which were less than the 1977/78 intake.

This is being achieved by establishing the number of places available to overseas students, given the numbers for 1976/77, but only 70 per cent of these places are definitely being offered. The other 30 per cent are being held on a waiting list so as to allow for a margin of error. Last year the polytechnic did not deliberately exceed its quota of overseas students. More students took up places on offer than had been expected.

Middlesex Polytechnic has adopted a "wait and see" policy as it does not have any quota laid down by its local authority.

London's new principal announced

by Ngaio Crequer

Mr James Stewart, clerk of the court of the University of London, is expected to become the university's new principal, it was revealed this week.

He is to replace Dr Glenn Willson whose surprise resignation last month, amid reports of a £100,000 "pay-off", has aroused public controversy.

Mr Geoffrey Edge, Labour MP for Aldridge-Brownhills, has written to Mr Edward du Cann, chairman of the House of Commons Public Accounts committee, and the Comptroller and Auditor General, to complain about "misuse of public funds" in the matter.

The proposed appointment of Mr Stewart will only add fuel to the controversy. The recommendation was agreed at a meeting on June 29 of a special committee convened by the university senate following Dr Willson's announcement. Senate members were sworn to strict secrecy about the *dossier*. It will go forward to senate on July 19.

For Mr Stewart it is a case of second time lucky. He applied for the job of principal in 1975 but Dr Willson was preferred to him. He has been clerk of the court since 1950.

Thumbs down for OU engineer degrees

by Robin McKie, Science Correspondent

After two years' deliberation, the Council of Engineering Institutions has announced that it will not recognize the Open University's engineering degree. But the council—the body responsible for setting the standards for Britain's 250,000 chartered engineers—has indicated that it could recognize the courses in future.

In a letter to the OU's the dean of technology, Professor John Sparks, the council states that it is not prepared to give full exemptions from its entry exams to holders of OU degrees—unlike other engineering graduates from most British universities. This follows an approach in 1976 by the OU who put before the council a series of hypothetical degree packages consisting of two foundation, two second-level, and two third-level courses in various engineering-related subjects.

The council has told the OU that it is not offering enough correlated courses which would give a student sufficient depth in a particular type of engineering. Graduates from the OU would have to sit part of the council's entry exam to gain membership.

But Professor Sparks said they were building up more and more new courses in a bid to put it right. This has received some backing from the council. "The question of recognition will be kept under review and it is hoped in due course when more courses at third- and fourth-level are introduced to define degree profiles which would be exempt from council examinations", its letter states.

A council spokesman said it had taken more than a year to gather further detailed evidence from the OU about the courses but this was no longer than for other educational organizations. He added: "We are confident the OU will meet our standards in due course."

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Salford call to attract women into engineering

by Ngaio Crequer

A call for a national effort to attract women undergraduates to engineering and applied sciences courses has been made by Mr John Horlock, vice-chancellor of Salford University.

In a reply to the Department of Education and Science discussion paper *Higher Education into the 1990s*, Mr Horlock says that the supply of women in these subjects is "woefully inadequate".

"The problem begins in the schools and to a certain extent in the home as well, where these disciplines continue to be regarded in the main as inappropriate to women. The universities are willing and eager to recruit women undergraduates in these subjects."

The university thinks that the probable introduction of the N and F levels in the schools will have a far-reaching effect on higher education and will require much more detailed discussion.

The impact will vary from subject to subject. It may lead to the restructuring of degree courses in the physical sciences, language and engineering, along the lines of the Scottish system, whereas it might mean small extensions in other degree courses, not amounting to a full year.

Salford estimates that its full-time student population will be about 5,000 by 1981-82, "but we are conscious of the moral responsibility on us to help and if the increased numbers come through".

One contribution would be to recruit visiting staff from industry, as a way of buying in expertise on a short-term basis.

The university thinks that the DES is over-optimistic in its assumptions about the age projection rate. It doubts if the central projection of 18 per cent can be reached and so its preference is for a national policy based on 1981-82 student numbers.

There are also doubts that there will be a significant pool of people capable of taking a degree course as mature students from the late 1980s onwards. But Salford stresses its belief in recurrent education and says the Government must be able and prepared to apply the resources.

'System is biased in favour of men'

Britain's higher education system is wholly biased against women. The structure and concept of university courses is male.

That was the charge made by Mr Eric Robinson, principal of Bradford College and a member of the Equal Opportunities Commission, at a conference of women tutors at Manchester at the weekend.

He said: "This means there is structural and fundamental sex discrimination. To change it is not simply a matter of sticking new bits on existing courses. New courses must be conceived as part of a strategy for fundamental change in the whole of post-school education."

Warning that the aim could meet with opposition, he said: "We are seeking to change some of the most cherished ideals of the universities and fundamental national attitudes."

He admitted, though, that the battle for change was proving much stiffer than expected. Parliament may have enacted legislation easily enough but there was widespread public cynicism and hostility to the idea of sex equality. There was a massive job to be done.

It was time to offer women educational opportunity without expecting them to conform to the life style of 18-year-old males: "British higher education institutions are notably inflexible in their attitude to broken study and credit transfer. It is not the exception but the rule that a student finds that a completed year of study at college or university A is given no recognition by college or university B", he said.

"This militancy against women much more than men because many women interrupt their studies for a short period of child bearing and do not follow the traditional pattern of a continuous, uninterrupted period of study. We need new institutions and teaching arrangements."

Mr Robinson complained that the UCCA system was opposed to women's interests: "The clearing house system of applications depends on the assumption that students are mobile. Those who are not are at a disadvantage. And who are they? Women. The family burden traditionally rests on women. Their movement is more restricted than that of men by dependents. So in practice the system discriminates against women."

Moreover, many women would not accept the idea of spending five years in continuous education and training; they wanted to do a few things and to return later. They needed new curricula, new teaching methods, new institutional arrangements compatible with women's changing aspirations.

Mrs Ruth Michaels, a seniior lecturer at Hatfield Polytechnic, said student grant system was discriminatory. Women relied to a greater number than men on discretionary grants, which were available to reduction by local authorities. She called for the abolition of the distinction between mandatory and discretionary grants, the replacement by one grant system for all students. She also wished for improved educational guidance for all and proposed the setting up of permanent advisory centres throughout the country.

Miss Valerie Hale, of the Department of education and training department, urged the case for more positive discrimination in favour of women. "Universities insist on their autonomy but they rely on government money." Financial sanctions might be the answer but "statutory and legislative machinery will in the end be a blind alley. It is better to concentrate pressure for change on the administrators."

Malaysians head the list of overseas students in the UK

The biggest group of overseas students in the United Kingdom last year was Malaysian, with more than 30,000 attending the universities and nearly 8,000 at higher and further education establishments. In the universities students from America and then Iran formed the next two largest groups.

The information was given as a written answer to a House of Commons question by Mr Peter Blaker (Cun, Blackpool South), who wanted to know the countries of origin of the 83,595 overseas students in higher and further education in the United Kingdom in 1976-77.

Details are as follows:

Country of origin	Universities and Research Council Institutes	Other Higher Education	Further Education	Non-advanced Further Education
Commonwealth countries and United Kingdom Dependencies				
Malaysia	30,[illegible]	[illegible]	[illegible]	[illegible]
Australia	[illegible]	[illegible]	[illegible]	[illegible]
Bahamas	[illegible]	[illegible]	[illegible]	[illegible]
Bangladesh	[illegible]	[illegible]	[illegible]	[illegible]
Barbados	[illegible]	[illegible]	[illegible]	[illegible]
British Virgin Islands	[illegible]	[illegible]	[illegible]	[illegible]
Brunei	[illegible]	[illegible]	[illegible]	[illegible]
Canada	[illegible]	[illegible]	[illegible]	[illegible]
Cyprus	[illegible]	[illegible]	[illegible]	[illegible]
Dominica	[illegible]	[illegible]	[illegible]	[illegible]
Fiji	[illegible]	[illegible]	[illegible]	[illegible]
Gambia	[illegible]	[illegible]	[illegible]	[illegible]
Ghana	[illegible]	[illegible]	[illegible]	[illegible]
Grenada	[illegible]	[illegible]	[illegible]	[illegible]
Guyana	[illegible]	[illegible]	[illegible]	[illegible]
Hong Kong	[illegible]	[illegible]	[illegible]	[illegible]
India	[illegible]	[illegible]	[illegible]	[illegible]
Jamaica	[illegible]	[illegible]	[illegible]	[illegible]
Kenya	[illegible]	[illegible]	[illegible]	[illegible]
Lesotho	[illegible]	[illegible]	[illegible]	[illegible]
Malawi	[illegible]	[illegible]	[illegible]	[illegible]
Malaysia	[illegible]	[illegible]	[illegible]	[illegible]
Malta	[illegible]	[illegible]	[illegible]	[illegible]
Mauritius	[illegible]	[illegible]	[illegible]	[illegible]
New Zealand	[illegible]	[illegible]	[illegible]	[illegible]
Nigeria	[illegible]	[illegible]	[illegible]	[illegible]
Papua New Guinea	[illegible]	[illegible]	[illegible]	[illegible]
Rhodesia	[illegible]	[illegible]	[illegible]	[illegible]
Sabah	[illegible]	[illegible]	[illegible]	[illegible]
Sarawak	[illegible]	[illegible]	[illegible]	[illegible]
Seychelles	[illegible]	[illegible]	[illegible]	[illegible]
Sierra Leone	[illegible]	[illegible]	[illegible]	[illegible]
Singapore	[illegible]	[illegible]	[illegible]	[illegible]
Sri Lanka	[illegible]	[illegible]	[illegible]	[illegible]
Swaziland	[illegible]	[illegible]	[illegible]	[illegible]
Tanzania	[illegible]	[illegible]	[illegible]	[illegible]
Trinidad & Tobago	[illegible]	[illegible]	[illegible]	[illegible]
Uganda	[illegible]	[illegible]	[illegible]	[illegible]
Zambia	[illegible]	[illegible]	[illegible]	[illegible]
Foreign countries				
Afghanistan	[illegible]	[illegible]	[illegible]	[illegible]
Algeria	[illegible]	[illegible]	[illegible]	[illegible]
Angola	[illegible]	[illegible]	[illegible]	[illegible]
Argentina	[illegible]	[illegible]	[illegible]	[illegible]
Bahrain	[illegible]	[illegible]	[illegible]	[illegible]
Belgium	[illegible]	[illegible]	[illegible]	[illegible]
Bolivia	[illegible]	[illegible]	[illegible]	[illegible]
Brazil	[illegible]	[illegible]	[illegible]	[illegible]
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Burma	[illegible]	[illegible]	[illegible]	[illegible]
Burundi	[illegible]	[illegible]	[illegible]	[illegible]
Cameroun	[illegible]	[illegible]	[illegible]	[illegible]
Chile	[illegible]	[illegible]	[illegible]	[illegible]
China	[illegible]	[illegible]	[illegible]	[illegible]
Colombia	[illegible]	[illegible]	[illegible]	[illegible]
Congo	[illegible]	[illegible]	[illegible]	[illegible]
Costa Rica	[illegible]	[illegible]	[illegible]	[illegible]
Cuba	[illegible]	[illegible]	[illegible]	[illegible]
Cyprus	[illegible]	[illegible]	[illegible]	[illegible]
Czechoslovakia	[illegible]	[illegible]	[illegible]	[illegible]
Denmark	[illegible]	[illegible]	[illegible]	[illegible]
Dominican Republic	[illegible]	[illegible]	[illegible]	[illegible]
Ecuador	[illegible]	[illegible]	[illegible]	[illegible]
Egypt	[illegible]	[illegible]	[illegible]	[illegible]
El Salvador	[illegible]	[illegible]	[illegible]	[illegible]
Ethiopia	[illegible]	[illegible]	[illegible]	[illegible]
France	[illegible]	[illegible]	[illegible]	[illegible]
Germany	[illegible]	[illegible]	[illegible]	[illegible]
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Greece	[illegible]	[illegible]	[illegible]	[illegible]
Guatemala	[illegible]	[illegible]	[illegible]	[illegible]
Haiti	[illegible]	[illegible]	[illegible]	[illegible]
Honduras	[illegible]	[illegible]	[illegible]	[illegible]
Hungary	[illegible]	[illegible]	[illegible]	[illegible]
Iceland	[illegible]	[illegible]	[illegible]	[illegible]
Indonesia	[illegible]	[illegible]	[illegible]	[illegible]
Iran	[illegible]	[illegible]	[illegible]	[illegible]
Iraq	[illegible]	[illegible]	[illegible]	[illegible]
Ireland, Republic of	[illegible]	[illegible]	[illegible]	[illegible]
Israel	[illegible]	[illegible]	[illegible]	[illegible]
Italy	[illegible]	[illegible]	[illegible]	[illegible]
Ivory Coast	[illegible]	[illegible]	[illegible]	[illegible]
Japan	[illegible]	[illegible]	[illegible]	[illegible]
Jordan	[illegible]	[illegible]	[illegible]	[illegible]
Korea, Republic of	[illegible]	[illegible]	[illegible]	[illegible]
Kuwait	[illegible]	[illegible]	[illegible]	[illegible]
Lebanon	[illegible]	[illegible]	[illegible]	[illegible]
Libya	[illegible]	[illegible]	[illegible]	[illegible]
Luxembourg	[illegible]	[illegible]	[illegible]	[illegible]
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Nepal	[illegible]	[illegible]	[illegible]	[illegible]
Netherlands	[illegible]	[illegible]	[illegible]	[illegible]
Netherlands Antilles	[illegible]	[illegible]	[illegible]	[illegible]
Nicaragua	[illegible]	[illegible]	[illegible]	[illegible]
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Pakistan	[illegible]	[illegible]	[illegible]	[illegible]
Panama	[illegible]	[illegible]	[illegible]	[illegible]
Peru	[illegible]	[illegible]	[illegible]	[illegible]
Philippines	[illegible]	[illegible]	[illegible]	[illegible]
Poland	[illegible]	[illegible]	[illegible]	[illegible]
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Puerto Rico	[illegible]	[illegible]	[illegible]	[illegible]
Romania	[illegible]	[illegible]	[illegible]	[illegible]
Saudi Arabia	[illegible]	[illegible]	[illegible]	[illegible]
Senegal	[illegible]	[illegible]	[illegible]	[illegible]
Sierra Leone	[illegible]	[illegible]	[illegible]	[illegible]
Singapore	[illegible]	[illegible]	[illegible]	[illegible]
Somalia	[illegible]	[illegible]	[illegible]	[illegible]
South Africa	[illegible]	[illegible]	[illegible]	[illegible]
Spain	[illegible]	[illegible]	[illegible]	[illegible]
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Switzerland	[illegible]	[illegible]	[illegible]	[illegible]
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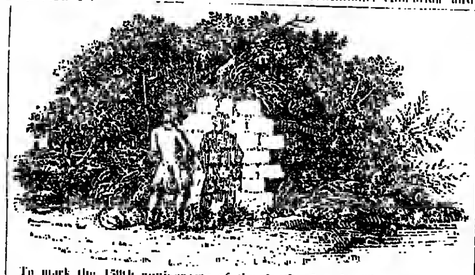
Taiwan	[illegible]	[illegible]	[illegible]	[illegible]
Thailand	[illegible]	[illegible]	[illegible]	[illegible]
Togo	[illegible]	[illegible]	[illegible]	[illegible]
Tunisia	[illegible]	[illegible]	[illegible]	[illegible]
Turkey	[illegible]	[illegible]	[illegible]	[illegible]
United Arab Emirates	[illegible]	[illegible]	[illegible]	[illegible]
Uruguay	[illegible]	[illegible]	[illegible]	[illegible]
USA	[illegible]	[illegible]	[illegible]	[illegible]
Venezuela	[illegible]	[illegible]	[illegible]	[illegible]
Vietnam	[illegible]	[illegible]	[illegible]	[illegible]
Yemen (Aden)	[illegible]	[illegible]	[illegible]	[illegible]
Yemen, Arab Republic	[illegible]	[illegible]	[illegible]	[illegible]
Yugoslavia	[illegible]	[illegible]	[illegible]	[illegible]
Zaire	[illegible]	[illegible]	[illegible]	[illegible]
Zambia	[illegible]	[illegible]	[illegible]	[illegible]
Stateless	[illegible]	[illegible]	[illegible]	[illegible]
Not specifically stated	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	34,[illegible]	[illegible]	[illegible]

These figures exclude students in courses at universities, at non-university institutions in Northern Ireland.



To mark the 150th anniversary of the death of artist Thomas Bewick (1753-1828) Tyne and Wear County Council has organized an exhibition of his work at the Laing Art Gallery, Newcastle upon Tyne, which will last until the end of September. Above, a tailpiece from his History of British Birds published in 1791.

Royal Society announces new exchange deals

The Royal Society has announced a series of new exchange agreements with science academies in Iran, Czechoslovakia, Hungary and India.

The exchange deal with the Imperial Academy of Sciences in Iran covers short visits to laboratories and institutes, bursary fellowships for research, and the promotion of joint scientific research between laboratories in the two countries, Lord Todd, president of the Royal Society, has been made an honorary member of the academy and it is planned that he will visit Iran this year to accept the honour.

The agreement with the Czechoslovak Academy of Sciences is a revised version of an exchange deal drawn up in 1968. The new agreement provides for greater flexibility in the number and length of study visits and also incorporates a clause to promote inter-institutional scientific collaboration.

Last week, academician J. Szentagothai, president of the Hungarian Academy of Sciences, visited the Royal Society to conclude a new deal with this country.

Canadian grant for career decisions study

A £5,000 grant for a one-year study of young adults' readiness to make career decisions has been awarded to the National Institute for Careers Education and Counselling by the Canadian Manpower and Immigration Commission.

The project, which starts in September, will involve contracting a measure of the "vocational maturity of young adults, aged 18-30" in semi-skilled or un-skilled occupations.

A spokeswoman for NICEC said the work was based upon the premise that the more people know about job openings, the more skilled they are at making decisions and the more they know about resources, the greater opportunity they have to maximize their choice of occupation, given certain constraints.

A further grant of £104,209 has also been awarded to NICEC by the Schools Council for a careers education dissemination project. Starting in September, this three-year project will sustain the work of the Schools Council careers education and guidance project in supporting local curriculum development in careers' education.

The project will also provide support and training provision to enable the materials produced by the SCCEGP to be used effectively as well as doing this in a setting which will introduce teachers to other careers' education materials and help them to make an informed choice between the materials available.

Other functions of the project include coordinating and supporting a network of regional coordinators and providing them with a termly newsletter.

Selly Oakes president

Professor John Ferguson, dean and director of studies in arts at the Open University, has been appointed president-elect of the Selly Oakes Colleges to succeed the Reverend Paul Rowntree Clifford when he retires next summer.

Students told: look beyond teaching jobs

by Lisa Wood

Students of Sheffield City Polytechnic's faculty of education were urged to reconsider other jobs because the number of unemployed graduates with teaching qualifications increased significantly in 1977.

In December, 1977, 19 per cent of the total teacher output of polytechnic that year were still seeking permanent employment, 11 per cent were in temporary posts and 17 per cent were unemployed. Of those who obtained permanent posts, 17 per cent went into non-teaching jobs.

The call for graduates to consider alternative employment to teaching has been made by the careers appointments service in the polytechnic's annual report.

More than 18 per cent of the 1977 graduates from the faculty of education and only 8 per cent with the post graduate certificate in education returned similar employment levels to those of 1976. The report urges that teachers should be made aware of the full value of their training and skills development on their teaching course and the value of these to employers outside teaching.

A special short industry-based option, now being offered to 2nd year students of education programmes, should help students become better aware of opportunities outside teaching, says the report.

The report urges students to understand that, in a "buyers' market" they must be able to offer high academic achievement and have real teaching potential mentioned in their references. It states: "If there is any doubt about this then they should be looking at alternative employment much earlier than past students have done".

Also suggested, as part of a careers service to all graduates, is a change of bias from that of advisory to that of placement. This could involve asking students to complete a curriculum vitae at their final year.

Innovation can save cash and time

by Patricia Santinelli

Major savings in academic staff time can result from the introduction of innovations at no "real" extra cost, a Council of Educational Technology study published last week reveals.

This conclusion is drawn from two case studies involving a university and a polytechnic, part of a main study, "Costing Educational Practice", commissioned by CET to explain the role of cost analysis and the recommended methods.

At Surrey University the introduction of a videotape system to relay laboratory experiments cost an initial outlay of £12,000 and six years of manpower. It was calculated that over the 12 years' life of the system 80 per cent of the cost would be recouped with 400 man-days of academic staff time saved.

The new system successfully virtually eliminated staff time previously amounting to 12½ per cent of their week spent on preparing and demonstrating experiments. It led to complete elimination of the 45 minutes spent on each experiment and to a reduction in marking time from 15 to five minutes.

It totally removed the need to employ assistant lecturers as the new system enabled academics together with demonstrators to cope adequately.

At Sheffield City Polytechnic, where a self teaching scheme in physics and chemistry for hotel and catering students was costed against conventional teaching methods, it was estimated that between 600 and 1,200 man-hours were being saved over five years.

This represented savings of either £1,840 compared to the lecture tutorial methods or £4,540 over the small group teaching method.

However, both savings and costs are notional and it is thought that the real cost to the polytechnic is £36 per year per student with savings of 120-240 hours in academic staff time being achieved depending on the methods against which it is compared.

Dental inquiry calls for evidence

A call has been made for evidence to be given to the Nuffield committee of inquiry into dental education.

Plans for gathering evidence have been finalized by the committee which proposes to visit all dental schools in Britain, and some in Europe, before it completes its report in 1980. And in a statement issued this week, the group also invited those with "constructive opinions" to present their views.

The aims of the inquiry are to recommend changes in dental education in view of continually changing circumstances, including varying patterns, increasing public expectations about treatment and new educational concepts.

Fathers and Sons: Mr Ron Dutton, aged 48, received the degree of PhD in education from the University of Bath last weekend as his son, Michael, aged 21, received a BSc in economics.

Pay battle for 'poverty-level' non-teaching employees

The National Union of Public Employees is to press for a £60 a week minimum wage for more than 65,000 non-teaching staff in Britain's universities, many of whose wages, the union claims, fall beneath the government's acknowledged poverty level.

NUPE's university activities are part of a major campaign, announced this week, to fight against low pay; building support amongst its 700,000 members for the two demands of the 1978 pay claims—the £60 minimum weekly wage and the 35-hour week.

Mr Rodney Bickerstaffe, national officer of NUPE and secretary of the trade union side of the Central Council for Non-Teaching Staff in Universities, said: "Although we have no figures we believe that many employees in universities have to claim family income supplement. So we have universities which are paying less than the government's acknowledged poverty level."

NUPE claims that, while there are no average earning figures available for university employees, wage levels are lower for manual workers in universities than for manual workers employed by local authorities, where nearly 30 per cent of manual employees earn less than £50 a week.

Last year's national agreement for manual workers in universities established a basic weekly wage of £42.40. This was a consultation agreement and so far more than 20 campuses have applied the agreement to their own campuses.

The national campaign will include meetings amongst NUPE's 12-14,000 members on university campuses. In September the campaign will move into a new phase with public rallies being held throughout the country.

Mr Bickerstaffe said that NUPE would be putting its objectives to the other trade unions involved in the negotiating machinery for non-teaching staff in universities. He said: "What energies will be dependent on the other trade unions involved. But we hope that a minimum wage target and a new hours agreement will be acceptable to the others."

Two prong appeal on early retirement in universities

The Committee of Vice-Chancellors and Principals is to meet the Department of Education and Science later this month to press its proposals for an early retirement scheme for university academic and related staff.

The scheme is jointly presented by the CVCP and the Association of University Teachers, and is based on the plan offered to civil servants. It is proposed that a lecturer would be able to retire after he or she had reached the age of 50, so long as the university was in agreement.

It would be entirely voluntary: both sides would have to agree. Universities might agree to some early retirements if they had a problem of "bunching at the top" and wanted to encourage some younger members of staff.

Lecturers would be able to take pensions without actuarial reduction and with an enhancement of the payment, because of the loss of earnings. The enhancement figure would relate to age and the number of years' service.

The DES is known to favour an early retirement scheme more in line with that offered to teachers.

For them early retirement is possible on only two grounds, redundancy, or when it is in the interests of an authority's efficient exercise of its duties.

The matter would be subject to local negotiation. A teacher would have the right to his or her earned years of service when pension rights were calculated. The authority has the discretion to enhance pension rights but not to exceed a total of 40 years' reckonable service.

The DES has made it clear that whatever scheme is agreed for the universities, no more money will be available.

Fewer apply to study for OU degrees

by Maggie Richards

Fewer people have applied to study for an undergraduate degree with the Open University next year, though the number of first-time applicants has remained high.

Figures released by the university this week show that only 42,764 applications have been received for places this year, compared with 45,293 last year.

The university is attributing the decline to three factors: for the past two years it has been able to admit a higher number of students, thus reducing the pool of re-applicants; wider adult education opportunities have encouraged re-applicants to seek alternative courses; higher Open University fees and a squeeze on discretionary grants have dissuaded some prospective students.

Of this year's applicants, more than 77 per cent were making an initial application, and in Mr Michael Bradford, chairman of the Open University's admissions committee, this is an encouraging sign.

Number of local authority awards on the increase

by Patricia Santinelli

A major increase in the number and value of awards made by local education authorities in 1975-76, is indicated in a recent Department of Education and Science statistics review on finance and awards.

During this period, i.e.a.s were responsible for giving 151,928 new full-value awards out of 168,574, the remainder made by the DES and the research councils.

In 1975-76 the total number of awards rose to 394,468—i.e.a.s accounted for nearly 378,000—an increase of 1,662 over the previous highest of around 393,000 in 1972-73. That figure includes 5,242 teacher training awards to students in departments of education for the first time.

In the same year i.e.a. expenditure on awards including discretionary and mandatory but not teacher training awards rose by 35 per cent to £183.6m. This amounted to an average expenditure of £684 per student or a 31 per cent increase over the previous year.

Excluding minimum awards, the average expenditure per student for fees was £185 and £538 for maintenance, representing 59 and 23 per cent increases respectively. These figures are net of deductions assessed in respect of parental, student or spouse contributions which increased to £53.8m nearly 39 per cent more than in the previous year.

However, figures on the net recurrent institutional expenditure per full time student from public funds at 1977 constant survey prices indicate that further education establishments spent marginally less each year from 1974-77 on both non advanced and advanced further education students. Their contribution decreased from £920 to £890 and from £1,430 to £1,370 respectively, whilst for polytechnics levels went from £1,460 to £1,240 and £2,190 to £1,930.

Similarly, research council expenditure on awards increased by £4.8m in 1976-77 in a total of £24.3m but the total number of awards at 13,161 represented a 1 per cent drop.

Statistics of Education, Vol 5, Finance and Awards, £2.70 HMSO.

Education 'is not leisure'

Fears that adult education was to be removed from other education services and made the responsibility of leisure departments in some parts of the country have been allayed by Mrs Williams, Secretary of State for Education.

In a letter to the Advisory Council on Adult and Continuing Education, Mrs Williams said she had been assured by the local authority associations that they subscribed firmly to the view that adult education should remain an integral part of the education provision made by local education authorities.

The council wrote to Mrs Williams in January expressing the view that there was a growing disposition in some authorities to separate adult education from the other functions of education committees. Oxfordshire was thought to be one authority contemplating such a move, which would make adult education the responsibility of the leisure department.

APT breakthrough in Lanchester acceptance

by John O'Leary

A breakthrough in recognition of the Association of Polytechnic Teachers is almost certain following the acceptance of a claim for local bargaining rights in Lanchester Polytechnic.

Coventry education committee accepted in principle a recommendation to grant local recognition to the APT and endorsement by the full council is expected to be a formality. Although the Labour group maintains its opposition, a spokesman said next week's council meeting was unlikely to overturn the decision.

Nevertheless, the National Association for Teachers in Further and Higher Education announced that it would continue to resist the proposal. "We are still not sure in practice what recognition can mean, since the APT is not part of the full bargaining machinery", an official said.

The education committee "agreed in principle that it would be desirable for the APT to be recognised for consultation and negotiation on appropriate matters relating to Lanchester Polytechnic". Assuming that the full council does not intervene, the details of implementation are to be worked out in consultation with the other interested parties.

An APT spokesman said the association hoped this decision would have the immediate effect of persuading the Hampshire education authority to undertake a similar review, since its membership was greater at Portsmouth Polytechnic than at Lanchester.

Further encouragement for the APT's quest for recognition in a number of centres came with this week's High Court ruling which overturned a decision by the Advisory Conciliation and Arbitration Service. In a claim regarded by the APT as a parallel case, ACAS had refused to recommend that the United Kingdom Association of Professional Engineers be recognized by a Bedfordshire engineering company, APE-Allen.

In a judgment which is expected to have implications on a number of interunion disputes, Mr Justice May said ACAS had an obligation to encourage the extension of collective bargaining, as well as simply to promote good industrial relations. There was an increasing desire among employees in non trade unions whose aspirations, negotiation procedures and political outlook were markedly different to those of the more traditional trade unions affiliated to the TUC.

Research body calls for study of key issues for 1990s

Twenty-one issues for an independent commission to investigate as part of a study into the pattern of higher education in the 1990s have been outlined by the Society for Research into Higher Education.

In its response to the Department of Education and Science consultative document "Higher Education into the 1990s", the society comments: "Needless to say we have not found the document, as it stands, provides by any means all the evidence necessary to arrive at well-based answers to the questions set out in its last paragraph. Our conviction is that much more of this evidence could be forthcoming if time, effort, skill and finance were systematically focused on it."

The response adds: "We need a more intimate knowledge than anybody at present possesses about many factors which effect, or could effect, the overall picture.

"The most important outcome of our study of the issues raised by this document is a strong conviction that a new and wide-ranging enquiry into the future of higher education in Britain is desirable. In our view neither the necessary numerical projections nor any clear-cut self-contained policy opinions can adequately be discussed without a probing consideration of larger questions about the role and purposes of higher education in a future society.

"We hope, therefore, that a major commission may be constituted at no distant date, financed perhaps by one or more foundations, to carry further the examination of issues to which the discussion document has been such a stimulus and has itself made such a significant contribution."

Among the 21 issues for the commission to study, the society suggests inquiries into the relationship between success in higher education and in careers, particularly among mature students; distribution of students in higher education by social class; the nature of the teaching, learning, and examining processes in higher education in different subject areas, and the possible need for new types of institutions in higher education, and the clarification of functions of present institutions.

Much work has already been done on many of the topics suggested, the society says, but it is urgent to see material assembled and evaluated in a rigorous and authoritative form and to encourage further research where necessary.

Tackling the short-term problem of pressure on places in higher education during the early 1980s, the society urges any expansion necessary to cope with demand.

Spastic claims discrimination

A physically handicapped graduate has protested to the Minister for the Disabled that he has been refused admission to a Cambridge University college because of his disability. Trinity College insists that the rejection has been made entirely on academic grounds.

Mr Wamidh Tiweemy is severely spastic and is almost permanently confined to a wheelchair.

He was accepted by the University of Cambridge Board of Graduate Studies as a research student in the social and political sciences department. This is separate from admission to a particular college.

Following the usual procedure he applied for admission to four colleges, putting Trinity as his first preference.

He preferred Trinity because it is near the centre of Cambridge and the university library. Its modern Wolfson building has a lift, the rooms are large and the corridors wide.

But he was turned down by Trinity, and then subsequently by his other choices. He claims that the refusal was because Trinity "does not wish to have the responsibility of accommodating a handicapped student".

Mr Tiweemy has written to Mr Alf Morris, MP, Minister for the Disabled, and asked him to take up his case.

FREE
Computer survey
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20 Orange Street
LONDON WC2H 7ED

Real need for change to 'continuing' system

by Maggie Richards

An urgent need for a transition from the present higher education system to a pattern of recurrent education is highlighted by the Advisory Council for Adult and Continuing Education in its reply to the Department of Education and Science consultative document "Higher Education into the 1990s."

According to the council the fundamental issue is replacing the present model—based on initial entry and full-time tuition—by continuing education available to all who are able to benefit by virtue of ability, experience, motivation, and regardless of age.

It goes on to emphasize the importance of reviewing the further education system and the impact of a continuing education policy on it and to strongly refute the claim that a more flexible higher education system will lead to a lowering of standards.

Urging a modification to the Robbins principle, the council says it has long been the experience of adult residential colleges, university extra-mural departments, polytechnics, the Workers' Educational Association and the Open University that there are substantial numbers of adults lacking formal qualifications who have the capacity to benefit from higher education.

The Robbins principle should be altered to accommodate those qualified by ability, motivation and experience, taking into account records of achievement in employment and public service, and in part-time adult education.

It advocates a phased transition from the present system, and points out that higher education institutions will need to reorientate their courses to meet the requirements of mature students.

Examining essential requirements of a new system, the council says a prerequisite will be the establishment of an effective system of information and publicity to make known the facilities available at all levels. It recommends a careful study of guidance services provided both in Britain and abroad.

Other necessary features include a new system of student awards and support costs linked to paid and unpaid educational leave; collaboration on developments in distance learning techniques and educational technology; and consideration of geographical accessibility.

The council also pinpoints the need for retraining programmes to equip academics to teach mature students. University extra-mural and adult education departments will have a vital role to play in this area, it predicts.

On the question of deferred entry to higher education, it cautions that this should be part of a coherent continuing education policy, and not used merely as a means of easing pressure until 1984. Similarly, it suggests short or part-time courses should be an integral part of a continuing education structure, and not designed as a cheap alternative for younger students.

The council also recommends the establishment of a national system of credit transfer and welcomes the efforts being made in this direction.

Short courses offered as solution

Enormous scope for encouraging students to embark on shorter full-time or part-time courses is envisaged by Goldsmiths' College in its response to the discussion document.

Accepting that such courses should not be prejudicial to the length and availability of conventional first degrees the college anticipates there will be tremendous potential for the development of shorter full-time and part-time courses if the correct programmes are offered and there is support from government, industry, local authorities and employers.

In welcoming the DES document, Goldsmiths' says it is a particularly relevant institution from which to study the pattern of higher education for the 1990s.

"It already embraces and embodies a range of work: research and advanced courses and first degrees for full-time and part-time students; adult and continuing education, professional, vocational, and non-vocational. From our own experience, therefore, the college has no reservations or hesitation in saying Model E is the appropriate paradigm."

The Robbins principle should continue to guide the provision of higher education, but with alterations to allow the admittance of other categories, it recommends.

The response also urges a prompt start on planning for provision in the 1990s: "Social Justice requires the implementation of certain measures before the end of the 1980s—while the bulge is still comfortably (or constrainedly) occupying higher education accommodation".

On the question of a division between the roles of the universities and other higher education institutions, the college is adamant that this must not happen. "The unity of education is an aim, not a shibboleth", the response says.

Closer part and full-time links proposed

Closer links between full and part-time courses, easier transfer between institutions and opportunities for shorter periods of self-contained study, are called for by the Standing Conference of Principals and Directors of Colleges and Institutes in Higher Education.

In its response to the Department of Education and Science's discussion paper the standing conference says that the need in a skill-based economy for highly trained and flexible manpower demands improved opportunities for recurrent training, with generous financial support.

The standing conference points out that higher education also includes the vast area of post-16 education normally designated as further or non-advanced. This area will also be hit by the tidal wave of births, although there will be a longer time lag.

The conference challenges the DES view that there is little evidence of unsatisfied demand for vocational part-time education.

Instead, "if the now accepted need for some to change career during a working lifetime and for a capacity to develop new skills for emerging industries are to be realized, the need for increased provision in part-time higher education is likely to increase sharply".

The conference emphasizes that one of the major influences on higher education is government policy and where it makes money available.

Government could do more to encourage men and women mature entrants in equal proportion, and give more support to 16 to 19-year-olds who want to stay on at school. It must also realize that the problem of access is vital for part-time students, as they have neither the money nor time to spend travelling to and from classes.

"Participation on a broader academic basis should also be encouraged", the report says.

Grants urged for part-time university study

by Nigaio Crequer

Part-time university courses similar to those provided for full-time school-leavers should be "designated" to ensure that students get grants, according to a report by Birkbeck College on the financing of mature students.

The college has proposed a framework of a system of support appropriate for working students who attend universities to follow degree courses either in the evening or on day release. It is a second response to the DES discussion paper.

The college says that the disqualification provisions of local education authority award regulations are a disincentive to those seeking recurrent education, and provisions based on previous part-time or self-financed education are particularly discouraging.

Students admitted to part-time university courses with the same entrance qualifications and content as full-time courses should have all or part of their fees paid.

The college proposes that students who have never had any L.e.a. financial support for higher education should be entitled to a grant to cover fees, books, travelling expenses and vacation study/field course costs.

Those who successfully complete the first half of the course by part-time study should be entitled to complete the rest full-time, supported by a major county award.

Students who have not had any local authority financial support within the previous three years should be entitled to a grant to cover fees and vacation study/field courses.

Those who successfully complete the first half of the course part-time should be entitled to up to three terms of full-time study supported by a major award.

Birkbeck also says that L.e.a.s should publicize and use their discretionary powers to give postgraduate grants for part-timers, and that completion of a substantial part of a research project by self-financed part-time study should raise a strong claim for support towards the cost of the remainder of the course".

TUC expert calls for more training on the shop-floor

The separation of education from the lives of ordinary people was one of society's greatest failings. This was the message of Roy Jackson, education secretary of the Trades Union Congress, to the first national conference of the Association for Adult and Continuing Education at St John's College, Oxford, last weekend.

Adult education would have to change its image and concern itself with the day-to-day practical problems that people faced in their jobs and in society, he said. This would mean developing education outside the traditional institutions and using methods such as work-based groups.

Outlining recommendations in a recently published TUC report, *Priorities in Continuing Education*, Mr Jackson called for a comprehensive system of occupational training to be available to all adults. The Manpower Services Commission's TOPS courses were a major breakthrough but were only the beginning. It was a scandal that a significant number of young people still had no systematic job induction, he said.

The present system by which block grants allowed local authorities to put adult education further down their priority list would have to change. Both women and ethnic minorities had suffered from training disadvantages and far more must be done for these people in the post-school sector. Mr Jackson also stressed the importance of paid educational leave for workers.

In reviewing the achievements of the association in its first six months, joint president Beryl Roskelly said it had gone forward in strength. With the merger of the Association for Adult Education, the National Federation of Continuative Teachers Association, and the Association of Principals of Short Term Residential Colleges to form the new body, AACE members had given themselves a wonderful opportunity to adopt a new perspective.

Mature student 'denied grant'

A mature research student at the London School of Economics has claimed that he lost almost £2,000 in grants from the Social Science Research Council because of a technicality.

Mr Kenneth Matthews, of Winchmore Hill, London, spent 13 years in the Foreign and Commonwealth Office, reaching the grade of senior executive officer (grade six) before leaving in 1974 at the age of 36 to complete a degree at the London School of Economics.

He graduated in 1976 and gained an SSRC quota studentship award of the LSE to go on to do a PhD. His award consisted of a maintenance allowance for himself plus a dependents' allowance for his wife and two children.

Mr Matthews said that the regulations of the SSRC provided for two other allowances under certain conditions. He did not qualify for the first, an older students' allowance, because it was not payable concurrently with a dependents' allowance, but he felt he was eligible for the second, a postgraduate experience allowance.

He bases his claim on his experience in the Civil Service which he believes was at least equivalent to what he would have gained if he had had a degree during the 13 years. Mr Matthews said: "I finally reached the grade of a senior executive officer which is two grades above that of the executive officer—the normal graduate entry grade in the executive branch."

He said that the grant would have meant an additional £650 to his family per annum, a total of nearly £2,000 over three years' study.

A spokesman for the SSRC said: "The SSRC is aware of Mr Matthews' case. Within the regulations he has been dealt with fairly and properly."

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North American News

Clive Cookson reports from Washington on a legal landmark over the right to discriminate

Affirmative programmes may go on

An overwhelming majority of affirmative action programmes in higher education seem likely to survive the impact of the Supreme Court's decision in the historic *Bakke* reverse discrimination case.

The nine justices of the United States' highest court were split: four ruled that the "special admissions programme" at the University of California's Davis Medical School, which reserved 16 out of 100 places for "disadvantaged" minority applicants, was constitutional and legal because "the purpose of overcoming substantial, chronic minority under-representation in the medical profession is sufficiently important to justify . . . remedial use of race".

Allan Bakke: admission ordered

Another four, including Chief Justice Warren Burger, held that the medical school clearly contravened title VI of the 1964 Civil Rights Act, which forbids racial discrimination by institutions receiving federal funding, by twice rejecting Allan Bakke, a white engineer with considerably higher grades and test scores than the students accepted under the special admissions programme.

Therefore, this group said, there was no need to consider the deeper questions of whether race can be a factor in admissions policy, or whether the Davis procedure contravened the "equal protection clause" of the United States Constitution (whose wording is much less precise than the 1964 Act).

The crucial ninth justice, Lewis Powell, decided that the medical school acted unconstitutionally by creating a closed category from which Allan Bakke was excluded because of his race.

So, by a five to four majority, the court ordered the University of California to admit Mr Bakke to Davis next term.

But Justice Powell also held that universities could take race into account in admissions decisions, if they avoided the rigid quota system used by Davis. A majority of five ruled that the University of California, and, by extension, other educational institutions, may continue race-based affirmative action programmes.

The narrowness of the judgments and the complexity of the written opinions issued by six of the nine justices ensured both satisfaction and disappointment for the thousands of organizations and institutions with an intense interest in the case.

Bakke had been heralded as the most momentous civil rights case since the Supreme Court's 1954 *Brown* school desegregation ruling. But the confusion caused by the justices' split will ensure a lot more litigation before the legal and constitutional limits of affirmative action are defined. The party has only just begun for American civil rights lawyers.

As Yale law professor and former Solicitor General Robert Bork commented: "This isn't a landmark decision. It doesn't tell us how much race counts. We're told that we can count race somewhat, but not too much. That's going to be difficult to apply."

But, in general, both the higher education community and the American civil rights and black leadership were relieved by the *Bakke* decision. Many had feared a much more sweeping ruling against affirmative action programmes designed to give preference to racial minorities—and women—to make up for past prejudices.

They were worried because Davis, with no history of past discrimination and an apparent quota of 16 medical school places for minorities, seemed a very unpromising test case for affirmative action in the Supreme Court, and they would have preferred to see a more flexible system on trial.

Attorney General Griffin Bell thought the tenor of the Supreme Court's opinions was in line with the Carter administration's support for affirmative action without quotas. He said: "It's the first time the Supreme Court ever upheld affirmative action and it did it as strong a way as possible."

Health Education and Welfare Secretary Joseph Califano took a similar line. However, some legal observers feel, the ruling casts doubt on the power of his department to persuade schools, colleges and universities to adopt "voluntary" affirmative action programmes with numerical targets, where there was no past history of discrimination against minorities or women.

But where past discrimination has been proved, HEW should be able to continue to impose numerical goals for employment of staff and faculty and admission of students. The higher education desegregation plans which the federal Government agreed this year with six Southern states (where segregation was once legal) fall into this category.

Leaders of the National Higher Education Associations and lobby groups maintained that most university affirmative action programmes were acceptable in the light of semantic argument in the civil rights field over the difference between a "quota" for minority representation—which is generally thought to be bad—and a numerical "goal", which many supporters of affirmative action feel is necessary to measure a programme's success.

Griffin Bell: 'strong as possible'

However, Justice Powell's key Bakke opinion says: "This semantic distinction is beside the point". He made clear that any programme that effectively reserves a specific number of places for members of certain races is unacceptable, whether it is called a target, goal or quota.

What is acceptable is a flexible procedure that takes applicants' racial and ethnic backgrounds into account, alongside their academic achievements, personalities and other factors.

"It is evident that the Davis special admission programme involved the use of an explicit racial classification never before countenanced by this court. It tell applicant who race was not sufficient, 2/10 of Chicano than they are totally excluded from a specific percentage of the seats in an entering class", wrote Mr Powell.

Both sides claim a victory

Both Allan Bakke and University of California president David Saxon claimed victory after the Supreme Court's historic decision.

"We are pleased with this decision", was all Bakke, an aerospace engineer, told reporters outside his house in Los Altos, California. He intends to enrol at Davis in the autumn.

Many do not interpret the *Bakke* decision as heavily damaging to minority admissions and other affirmative action programmes. "I consider the decision a victory not only for the University of California, but for minorities, for social justice, and for higher education", Professor Saxon told a news conference.

"The decision means that race may be taken into account as a factor in the admissions process. It cannot be the sole or specific factor", he added.

While the Davis admissions programme will have to be modified, "no other programme in this university or any other has been found unlawful", he emphasized.

Within the UC system there are five medical schools. Each has its own admission programme providing a variety of opportunities for all candidates.

Professor Saxon said: "We will not make any significant changes in our programme. The number of minorities in our medical and law schools are already substantial."

He added: "I am committed to affirmative action. We expect to have at least as many minorities applying to medical as we have had previously. The real problem is that fewer minorities finish high school than do whites, leaving a far smaller pool of applicants.

"We are now in the junior high schools now trying to explain to minority students the courses they must take to go to this college or any other. We are going to increase the number of minorities. They don't all have to go to the University of California, but it is important there be a place for them somewhere."

Robert Mishell, Professor of immunology at UC Berkeley who has initiated several community outreach programmes, was less hopeful.

"The decision will tend to enable those who are not exponents of affirmative action to have a little more power. It will be easier now to discriminate against women and minorities."

Stanford law professor, Gerald Gunther, said: "The *Bakke* case is a symbol of the fate of admissions programmes nationally. The court has ruled against quotas or fixed numbers of minorities in the universities. Further litigation is pending concerning the fate of affirmative action on employment and housing."

San Jose State University president, John Bunzel, said: "The use of race as one of many different factors for admissions officers to consider is a difficult and delicate balance to strike.

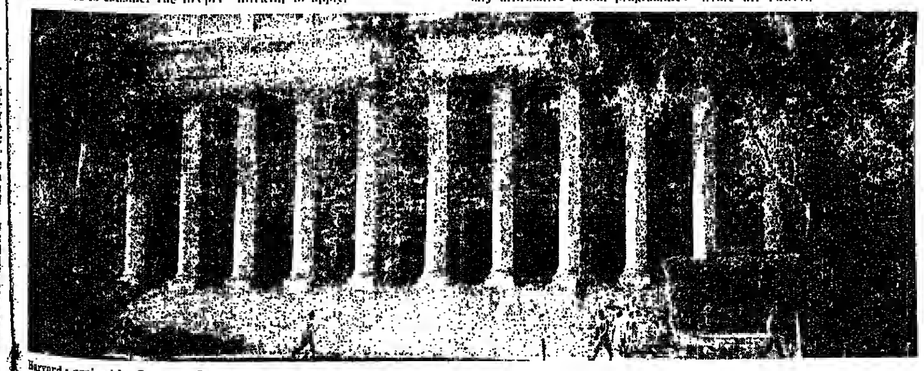
"A bad programme is one that sets aside a fixed number of places for the exclusive use of any group solely on the basis of race. A good programme is one that is race-sensitive, but will not invoke race in a rigidly discriminatory manner."

California Governor, Jerry Brown, noted: "The court spoke in many voices, but it is obvious that mechanical formulas or quotas based on race are illegal—but that public institutions must take into account many factors and can make affirmative efforts to open opportunities for all the people of this state."

State superintendent of public instruction, Wilson Riles, said: "It is my intention as a Regent of UC to work with President Saxon and the legislature on ways to increase the number of under-represented minorities in the University of California."

Asked if the University of California would copy the Harvard system, President Saxon replied: "We don't need to emulate Harvard. We have nine campuses and only one needs to be modified."

Charlotte Beyers



Harvard: praised by Supreme Court.

Harvard: the right mixture

Harvard University's admissions process was singled out for special praise by Justice Lewis Powell, author of the Supreme Court's "Leading Opinion", as a means of achieving a racially diverse student body without assigning a fixed number of places to minority applicants.

He quoted extensively from Harvard's brief to the court, describing its procedures, when he announced the *Bakke* decisions. "When the (Harvard) committee on admissions reviews the large middle group of applicants who are 'admissible' and deemed capable of doing good work in their courses, the race of an applicant may tip the balance in his favour just as his geographic origin or a life spent on a farm may tip the balance in other candidates' cases.

"A farm boy from Idaho can bring something to Harvard College that a Bostonian cannot offer. Similarly, a black student can usually bring something a white person cannot offer", the brief said.

In Mr Powell's opinion, "This kind of programme treats each applicant as an individual in the admissions process. The applicant who loses out on the last available seat to another candidate receiving a 'plus' on the basis of ethnic background will not have been foreclosed from all consideration for that seat simply because he was not the right colour or had the wrong surname.

"It would mean only that his combined qualifications, which may have included similar nonobjective factors, did not outweigh those of the other applicant."

The brief says Harvard selects only about 150 out of an entering class of 1,100 for their academic brilliance alone. The remainder are selected from a huge pool of qualified applicants to give a diverse study body.

"The belief that diversity adds an essential ingredient to the educational process has long been a tenet of Harvard College admissions", the university told the court. "Fifteen or 20 years ago, however, diversity meant students from California, New York and Massachusetts city dwellers and farm boys, violinists, painters and football players, biologists, historians and classicists, potential stockbrokers, academics and politicians. The result was that very few ethnic or racial minorities attended Harvard College.

"In more recent years Harvard College has expanded the concept of diversity to include students from disadvantaged economic, racial and ethnic groups." As a result, 8.1 per cent of the college's 1978-79 freshman will be black, 5.7 per cent will be Asian-Americans and 4.6 per cent will be Hispanic.

In the case of racial minorities, Harvard makes an effort to accept significant numbers of blacks: "10 or 20 black students could not begin to bring to their classmates and to each other the variety of points of view, backgrounds and experiences of blacks in the United States.

"Their small numbers might also create a sense of isolation among the black students themselves and thus make it more difficult for them to develop and achieve their potential." But no minimum number is set.

Not everyone is as enraptured by the Harvard system as Justice Potter. *The New York Times* said it appeared to "lay the college open to charges of making arbitrary and capricious choices", while avoiding institutionalized reverse discrimination.

More importantly, it seems strange to choose America's top university as a model for 3,000 less fortunate colleges. Harvard can easily get away without a special minority admissions programme because its pool of talented applicants includes many of the country's most gifted black school leavers. Few other institutions are so lucky.

India

Book ban angers liberals

from A. S. Abraham

BOMBAY

The withdrawal of a school textbook has stirred up a year-old controversy between the federal Janata government and leftist sections of the academic community, especially historians.

The Central Board of Secondary Education has withdrawn a history book, *Ancient India*, written by Dr R. S. Sharma of Delhi University and prescribed for study in class XI in some 1,100 board-affiliated schools.

The board's chairman, Mr R. P. Singhal, has said that there is no plan to withdraw a second history textbook, *Medieval India*, written by Dr Romila Thapar of Jawaharlal Nehru University and prescribed for the same class. Dr Thapar is the author of the first volume of the two-volume *A History of India* in the Pelican Original series.

Medieval India was one of four history textbooks which the government sought unsuccessfully to have withdrawn from the school syllabus about a year ago, an attempt which provoked a fierce "battle" between liberal intellectuals and their more conservative opponents who were accused of being Hindu chauvinists

Mr Singhal said that a decision had yet to be taken about a third textbook, *Modern India*, by Dr Bipan Chandra, also prescribed in board-affiliated schools. Another history textbook by Dr Chandra, *Freedom Struggle*, was among the four texts earlier sought to be withdrawn.

Dr Sharma, Dr Thapar and Dr Chandra are all Marxist historians.

According to Mr Singhal, the board's policy is to keep out of the syllabus not merely controversial textbooks but even controversial chapters in otherwise acceptable books.

The board is an independent body, as is the National Council of Educational Research and Training—a kind of School Council—under whose banner *Ancient India* has been published (the book was about to go into a second edition when it was withdrawn).

But critics of the board's action say it has withdrawn the book at the instance of the government, particularly the Education Minister, Dr P. C. Chunder.

As evidence, they point to the carefully planned campaign against the book which became necessary because the book came out after the controversy over the four other texts had begun.

A hastily formed "Sanskriti Bachao (Save Our Culture) committee" appealed to parents and others to protest against the book. A conference to mobilize academic opinion against the book was also held by the Indian History and Culture Society, which enjoys official patronage and comprises carefully chosen conservative historians.

Critics say that with the government having created a controversy, the way was clear for the board to withdraw the book and claim that this was in keeping with its policy. So far, the board has not yet found a book to replace *Ancient India*.

All the books in question see events in a wider socio-economic context. As a result, the past is demystified and deromanticised.

To their detractors, however, they are denigrating the past and attacking the concept of *Ram Rajya*, the Hindu traditionalist's yearning for a return to a mythical golden age when the subcontinent was paradise.

Mexico

Lessons for teachers

A Postgraduate Teachers College is to be set up in September, with the aim of improving the teaching capacity of educators by instructing them in the latest techniques and methods. The idea is to upgrade national education and increase teacher earning capabilities.

Malta

Education reforms set out in White Paper

from David Arnold

VALLETTA

The Maltese Government has issued a White Paper on its proposed controversial reforms in tertiary education. The paper also includes a Bill entitled "An Act further to amend the Education Act 1974". The changes are necessary, it is claimed, to "meet the challenges of the new age the island is embarking on".

Malta, a small state with a population of about 300,000 is to have two universities; the "Old University" and the present polytechnic which is described as the "New University". The faculties of medicine, civil engineering and architecture, and other individual departments which will form part of a new faculty of education, are to be transferred to the New University. The Old Universite will retain the faculties of law, sciences and humanities.

The paper claims that after consultation between the Church authorities, in Rome and Malta, the teaching of "Catholic philosophy and theology will, in future, be provided by the Catholic church, and the function of the Old University will be limited to conferring the appropriate degrees to students who reach the necessary standards".

Christus Rex, the society of Maltese priests, claimed that the paper discriminates against the study of theology. It stressed that there has been no agreement on the measures between the Church authorities and the government. Similar views have been expressed by the University Students' Catholic Movement.

Replying in Parliament, Mr Mintoff, the Prime Minister, said he did not expect the reaction of the Christus Rex as the matter had been settled with the Vatican.

The Association of University Architecture Students, whose members will have to study at the New University, claimed that its department of civil engineering was in a precarious situation because of the number of posts which had not been filled. There was also a lack of audio-visual facilities and of an adequately equipped library.

The main proposed innovation in the Bill is the worker-student system. Under this in the New University, students will generally come from the employees of public bodies, of industries or commercial organizations which require their services.

These worker-students will alternate a period of work with a period of studies, and will be paid a salary. The main advantages of this are said to be:

- Tertiary education would come within the reach of those from all walks of life who deserve it for their outstanding educational attainments
- Students would become independent of all systems of patronage by giving them the opportunity of earning a decent living during the university years
- The professional classes would be brought closer to the working community
- Where possible students would be provided with a gainful occupation in which his academic qualifications can be used for the benefit of himself and of the community

Nominations for selection as worker-students will come from the candidate's employer and, in some cases, the employer and workers' representatives. The final selection will be made by a board appointed by the Prime Minister. This aspect of the Bill has been heavily criticized in view of the fact that students, who have not had the opportunity to be nominated, will only be admitted if there is a place and will have to pay fees. At present, all tertiary education in Malta is free.

The University Students Representative Council described the selection board as "a premonition and an extension of bureaucracy totally to be condemned." It was not against the concept of student-worker, but was totally against the introduction of fees for students who were not selected.

It also informed the Government that most medical students, who have remained in Malta in large number left to continue their studies in the United Kingdom, could not accept the student-worker scheme. It claimed that a White Paper was meant to be a basis for discussion and study and not a "fait accompli".

While the fusing of both universities will come from the government, each university will be obliged to prepare every year a budget of its requirements for the following year together with proposals for the allocation of those funds. These proposals will then be submitted to and discussed in Parliament.

The Opposition agrees with Mr Mintoff that education reforms are needed but not those proposed in the white Paper. It says the proposed scheme would not narrow the social gap between classes and would not bring more students from the low-income families into tertiary education.

The dean of the faculty of arts at the University of Malta, Professor Peter Serracino Inglott, recently he MP's on both sides of Parliament, has resigned because of lack of consultation by Government.

Dr Paul Pavsar, chairman of the commission for higher education, has resigned for "health reasons".

Dom Mintoff

France

Call for curbs on foreign students

from Guy Neare

An unprecedented attack on foreign students has been launched by Mme Alice Saunier-Seité, Minister for Higher Education.

Speaking to a conference of university teachers and administrators at Brest, the Minister called for a tightening up of entry conditions for foreign students, particularly those from African countries.

"French universities are being used as the dumping ground for the Third World Students", she said. Moreover most of the foreign students coming to our universities have enrolled in courses that bear not the slightest interest either for themselves or to their home countries."

Nor can E. H. Carr be judged solely as a historian. During the last war he was assistant editor of *The Times* and his chief leader writer at a time when that newspaper was commonly referred to as "the thrupenny *Daily Worker*". From Beveridge to Yalta he occupied this post of quiet influence. He was a behind-the-scenes J. B. Priestley, a "New Jerusalemite" in the pejorative phrase of conservative opponents, a member of that band of statist radicals who paved the way for 1945.

Edward Hallett Carr was born a world age in 1892. His father was a small manufacturer in north London. My family was from the upper-middle lower but middle middle class, and very Victorian", he recalls. "They never in my knowledge went abroad in their lives."

He was educated at the Merchant Taylors' School and in 1911 went up to Trinity College, Cambridge with an entrance scholarship. In the years immediately before the First World War Trinity dominated Cambridge not only by the number of its undergraduates but also by the brilliance of its dons. They included, besides the Master, Montague Butler, Hardy in mathematics, Whitehead in philosophy, Housman in classics, and Fraser in the newfangled anthropology. The young Bertrand Russell had just been appointed a lecturer in mathematics and logic.

Dr Carr remembers such men only as distant figures. "The dons had a certain glamour then but they did not have much contact with undergraduates. Undergraduates were less looked after than now. A man saw his tutor twice a term, when he came up and when he went down, and that was that." However their remoteness did not handicap his academic progress at Cambridge. He got a first in the classics tripos after winning a string of university prizes—for Latin epigrams, Latin poems, Greek translation.

But the year which was already two years old when he graduated changed the direction of his life. In terms of both his immediate career and his intellectual formation. Dr Carr is sure that if it had not been for the war he would have become a classics don in Cambridge. Instead in 1916 he was drafted into the Foreign Office—he regards the choice of the Foreign Office as almost accidental—and worked for the next 20 years as a diplomat.

So it was as a diplomat, not as an academic, that he first encountered Russia. This encounter again happened largely by accident in a Foreign Office that still distributed specialization. His first job there in fact concerned the German blockade. But in 1917 he was moved on to Russian affairs, which in spite of (or perhaps because of) the Revolution of that year still seemed in be regarded as a peripheral and rather boring assignment.

Two years later he was attached to the British delegation to the Paris peace conference and again found himself asked to unravel ehe increasingly tangled Russian situation. His experience of eastern Europe was further increased when he was second secretary in Riga, then capital of an independent Latvia, from 1925 to 1929. It was from Riga that in the winter of 1926-27 he made his first visit to the Soviet Union.

Alongside this fairly continuous, if unplanned, involvement in Soviet affairs Russia had made an immediate and decisive intellectual impact on the young Edwardian whose faith in the certain values of liberal England, like that of so many of his generation, had been badly eroded by the Great War. This was not on early flirtation with the ideas of Lenin. In this E. H. Carr was not anticipating the pro-Soviet mentality of the 1930s.

Its true source was his discovery of the intellectual world of nineteenth-century Russia—of Herzen, Bakunin and Dostoevsky. He explained: "What appealed to me about Russia was that it was so entirely different. They thought in an entirely different way from the very conventional world in which I had been brought up. Theirs was not really the same world as ours."

To the late twenties and early thirties Dr Carr found that the don was still alive within the diplomat. In 1929 he was recalled from Riga and became assistant adviser on League of Nations affairs at the Foreign Office, a new responsibility that distracted briefly and rather ingloriously to Government service. In October, 1939, he was appointed director of foreign publicity in the Ministry of Information—only to be sacked the following April by the late Lord Reith. "He recognized that I was no good at the job", he now recalls. "Neither, of course, was he. No one really knew what we were meant to do."

E. H. Carr's first contact with *The Times* had been in 1937 when he wrote three articles based on his second visit to the Soviet Union. He explained that after Chamberlain's policy of appeasement had been discredited *The Times*, which had supported it wholeheartedly, "was in a mess". He had originally been approached by the editor, Geoffrey Dawson, to join the paper in 1939 and after the Ministry of Information episode the offer was repeated by Dawson's successor, Barrington Ward. In 1941 Dr Carr joined *The Times* as assistant editor, in effect chief leader writer.

His writing over the next five years, mainly leaders in *The Times* but also polemical pamphlets like *Conditions of Peace*, were an important contribution to, as well as a reflection of, the peculiar political culture of wartime Britain which is still widely believed laid the foundations for the Labour victory of 1945.

At any rate, Dr Carr achieved a certain notoriety among Conservatives. He was denounced in the House of Lords as "an active danger" because of the views he expressed on *Conditions of Peace*. In 1946, when he finally left *The Times*, Randolph Churchill wrote that it was he "who had been mainly responsible for *The Times* becoming, apart from the Communist *Daily Worker*, the main British apologist for policies of the Kremlin".

Dr Carr does not apologize for the influence he exercised at *The Times* but he does not exaggerate it either. He now admits that *Conditions of Peace* was "a terrible example of wartime utopianism that has deservedly been out of print for many years". The original objections from Conservatives, he believes, arose over domestic rather than foreign policy issues.

Under his influence *The Times* supported the Beveridge report. It also expressed support—mild, naive and a little vague but support nevertheless—for "planning" in a postwar Britain, a viewpoint that perhaps come more easily to someone fascinated by the planning experiments undertaken in Soviet Russia since the Revolution—or so his opponents suspected.

He recalls that only in his last year at *The Times* did opposition to what was seen as the newspaper's "soft" line on foreign policy become significant, and by then the cold war was well established. "The only people that really got his trouble with earlier, in 1944, were the Poles", he explained. "At the time very few people saw Yalta as any kind of betrayal."

E. H. Carr left *The Times* in 1946 but not because of a successful right-wing backlash against his alleged radicalism. Barrington Ward in fact urged him to stay. He left because he had always intended his foray into journalism to be a temporary one. He was already 52 years old and had decided to dedicate himself to writing the history of Soviet Russia—a task that would combine his 30-years-long fascination with the "otherworldness" of Russia with the more measured enthusiasm for deliberate social change that was more typical of his *Times* period.

This is precisely what he has done—with a brief interlude as tutor in politics at Balliol from 1953 to 1955, and slight but revealing diversions such as the 1961 Trevelyan lectures on the theme: what is history? In 1955, after an absence of almost 40 years, he returned to Trinity and has remained there working on *A History of Soviet Russia* for the past 23 years.

Dr Carr, looking back over this labour, now says: "Had I realized at that time the formidable dimensions of the task I might not have been rash enough to undertake it. The work grew constantly in my hands, partly through my own increased consciousness of the complexities of the subject and partly through the publication of material hitherto unknown or unavailable. I am not sure exactly what I envisaged when I began to research and write. But it was something far smaller and more restricted in scope than what has emerged."

The reputation of E. H. Carr as a historian must rest squarely on the reputation of *A History of Soviet Russia*. He has devoted a third of his long life to it. But other historians have not found it easy to agree about this work—except perhaps to the limited extent that admiration for industry has eroded earlier doubts and criticism as volume has been piled on volume.

Four main factors have contributed to this unusual ambiguity. The first and perhaps most fundamental is that E. H. Carr belongs to no school of history. He was born too late to be a Whig historian but his political attitudes set him far apart from his contemporary, Namier. His long absences first as a diplomat and then as a journalist have also contributed to his comparative isolation from the main currents of British historiography. He has always been something of an outsider.

The second is that it is still perhaps too early to expect a properly dispassionate account of revolutionary Russia. Dr Carr himself points out that no serious history of the French Revolution was attempted until more than half a century after 1789. "Looking back over the past 60 years, what strikes me most are the extraordinary variations in the climate of western reaction to the Revolution", he explains. "So volatile a climate of opinion is inimical to the writing of history and can hardly fail to weigh on any western scholar engaged in the study of the Russian Revolution."

The third is that in spite of his scale *Soviet Russia* is limited in scope. It is not a history of the Revolution itself, nor of Russia since 1917, but of the economic, social and political order (very much in that order) that emerged from the Revolution. So even the dramatic events of the period covered, such as the Kronstadt mutiny or the strife in the leadership after Lenin's death, recede into a wider perspective—conveniently so some of E. H. Carr's conservative critics have alleged. At any rate those who are attracted by the grandeur of the Revolution or repelled by the Bolshevik dictatorship and its excesses are likely to find the work a rather colourless one.

The fourth is simply that 28 years separate

continued overleaf

PROFILE

Revolution without the passion

Peter Scott talks to E. H. Carr whose epic history of Soviet Russia will be completed this autumn

Sixty-one years ago a young Mr E. H. Carr who had only joined the Foreign Office as a temporary clerk the year before from Cambridge was, in his own economical phrase, "shifted onto the Russian Revolution". He never left it. In the autumn the last part of the last volume of his *History of Soviet Russia* will be published, thus completing one of the most impressive but least easily categorized achievements of British historiography in this century.

But although the Russian connexion has been the dominant one for Dr Carr his contribution to history is more than the sum of *Soviet Russia*. 11 books arranged in 19 volumes. At a more popular level *What is History?*, the published version of his Pitt Trevelyan lectures, can still be found in the kit bags of most history undergraduates—the discreet dispute of some fellow historians who distrust his confident assertion of a pragmatic, leftish but amoral, even amateur philosophy of history over the more subtle and perhaps more professional sophistication of the Namiers and Trevor-Ropers.

Nor can E. H. Carr be judged solely as a historian. During the last war he was assistant editor of *The Times* and its chief leader writer at a time when that newspaper was commonly referred to as "the thrupenny *Daily Worker*". From Beveridge to Yalta he occupied this post of quiet influence. He was a behind-the-scenes J. B. Priestley, a "New Jerusalemite" in the pejorative phrase of conservative opponents, a member of that band of statist radicals who paved the way for 1945.

Edward Hallett Carr was born a world age in 1892. His father was a small manufacturer in north London. My family was from the upper-middle lower but middle middle class, and very Victorian", he recalls. "They never in my knowledge went abroad in their lives."

He was educated at the Merchant Taylors' School and in 1911 went up to Trinity College, Cambridge with an entrance scholarship. In the years immediately before the First World War Trinity dominated Cambridge not only by the number of its undergraduates but also by the brilliance of its dons. They included, besides the Master, Montague Butler, Hardy in mathematics, Whitehead in philosophy, Housman in classics, and Frazer in the newfangled anthropology. The young Bertrand Russell had just been appointed a lecturer in mathematics and logic.

Dr Carr remembers such men only as distant figures. "The dons had a certain glamour then but they did not have much contact with undergraduates. Undergraduates were less looked after than now. A man saw his tutor twice a term, when he came up and when he went down, and that was that." However their remoteness did not handicap his academic progress at Cambridge. He got a first in the classics tripos after winning a string of university prizes—for Latin epigrams, Latin poems, Greek translation.

But the year which was already two years old when he graduated changed the direction of his life. In terms of both his immediate career and his intellectual formation. Dr Carr is sure that if it had not been for the war he would have become a classics don in Cambridge. Instead in 1916 he was drafted into the Foreign Office—he regards the choice of the Foreign Office as almost accidental—and worked for the next 20 years as a diplomat.

So it was as a diplomat, not as an academic, that he first encountered Russia. This encounter again happened largely by accident in a Foreign Office that still distributed specialization. His first job there in fact concerned the German blockade. But in 1917 he was moved on to Russian affairs, which in spite of (or perhaps because of) the Revolution of that year still seemed in be regarded as a peripheral and rather boring assignment.

Two years later he was attached to the British delegation to the Paris peace conference and again found himself asked to unravel the increasingly tangled Russian situation. His experience of eastern Europe was further increased when he was second secretary in Riga, then capital of an independent Latvia, from 1925 to 1929. It was from Riga that in the winter of 1926-27 he made his first visit to the Soviet Union.

Alongside this fairly continuous, if unplanned, involvement in Soviet affairs Russia had made an immediate and decisive intellectual impact on the young Edwardian whose faith in the certain values of liberal England, like that of so many of his generation, had been badly eroded by the Great War. This was not on early flirtation with the ideas of Lenin. In this E. H. Carr was not anticipating the pro-Soviet mentality of the 1930s.

Its true source was his discovery of the intellectual world of nineteenth-century Russia—of Herzen, Bakunin and Dostoevsky. He explained: "What appealed to me about Russia was that it was so entirely different. They thought in an entirely different way from the very conventional world in which I had been brought up. Theirs was not really the same world as ours."

To the late twenties and early thirties Dr Carr found that the don was still alive within the diplomat. In 1929 he was recalled from Riga and became assistant adviser on League of Nations affairs at the Foreign Office, a new responsibility that distracted briefly and rather ingloriously to Government service. In October, 1939, he was appointed director of foreign publicity in the Ministry of Information—only to be sacked the following April by the late Lord Reith. "He recognized that I was no good at the job", he now recalls. "Neither, of course, was he. No one really knew what we were meant to do."

E. H. Carr's first contact with *The Times* had been in 1937 when he wrote three articles based on his second visit to the Soviet Union. He explained that after Chamberlain's policy of appeasement had been discredited *The Times*, which had supported it wholeheartedly, "was in a mess". He had originally been approached by the editor, Geoffrey Dawson, to join the paper in 1939 and after the Ministry of Information episode the offer was repeated by Dawson's successor, Barrington Ward. In 1941 Dr Carr joined *The Times* as assistant editor, in effect chief leader writer.

His writing over the next five years, mainly leaders in *The Times* but also polemical pamphlets like *Conditions of Peace*, were an important contribution to, as well as a reflection of, the peculiar political culture of wartime Britain which is still widely believed laid the foundations for the Labour victory of 1945.

At any rate, Dr Carr achieved a certain notoriety among Conservatives. He was denounced in the House of Lords as "an active danger" because of the views he expressed on *Conditions of Peace*. In 1946, when he finally left *The Times*, Randolph Churchill wrote that it was he "who had been mainly responsible for *The Times* becoming, apart from the Communist *Daily Worker*, the main British apologist for policies of the Kremlin".

Dr Carr does not apologize for the influence he exercised at *The Times* but he does not exaggerate it either. He now admits that *Conditions of Peace* was "a terrible example of wartime utopianism that has deservedly been out of print for many years". The original objections from Conservatives, he believes, arose over domestic rather than foreign policy issues.

Under his influence *The Times* supported the Beveridge report. It also expressed support—mild, naive and a little vague but support nevertheless—for "planning" in a postwar Britain, a viewpoint that perhaps come more easily to someone fascinated by the planning experiments undertaken in Soviet Russia since the Revolution—or so his opponents suspected.

He recalls that only in his last year at *The Times* did opposition to what was seen as the newspaper's "soft" line on foreign policy become significant, and by then the cold war was well established. "The only people that really got his trouble with earlier, in 1944, were the Poles", he explained. "At the time very few people saw Yalta as any kind of betrayal."

E. H. Carr left *The Times* in 1946 but not because of a successful right-wing backlash against his alleged radicalism. Barrington Ward in fact urged him to stay. He left because he had always intended his foray into journalism to be a temporary one. He was already 52 years old and had decided to dedicate himself to writing the history of Soviet Russia—a task that would combine his 30-years-long fascination with the "otherworldness" of Russia with the more measured enthusiasm for deliberate social change that was more typical of his *Times* period.

This is precisely what he has done—with a brief interlude as tutor in politics at Balliol from 1953 to 1955, and slight but revealing diversions such as the 1961 Trevelyan lectures on the theme: what is history? In 1955, after an absence of almost 40 years, he returned to Trinity and has remained there working on *A History of Soviet Russia* for the past 23 years.

Dr Carr, looking back over this labour, now says: "Had I realized at that time the formidable dimensions of the task I might not have been rash enough to undertake it. The work grew constantly in my hands, partly through my own increased consciousness of the complexities of the subject and partly through the publication of material hitherto unknown or unavailable. I am not sure exactly what I envisaged when I began to research and write. But it was something far smaller and more restricted in scope than what has emerged."

The reputation of E. H. Carr as a historian must rest squarely on the reputation of *A History of Soviet Russia*. He has devoted a third of his long life to it. But other historians have not found it easy to agree about this work—except perhaps to the limited extent that admiration for industry has eroded earlier doubts and criticism as volume has been piled on volume.

Four main factors have contributed to this unusual ambiguity. The first and perhaps most fundamental is that E. H. Carr belongs to no school of history. He was born too late to be a Whig historian but his political attitudes set him far apart from his contemporary, Namier. His long absences first as a diplomat and then as a journalist have also contributed to his comparative isolation from the main currents of British historiography. He has always been something of an outsider.

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Australia

College heads criticize 1979 budget

from John Kirkaldy

SYDNEY

Heads of universities and Colleges of Advanced Education (CAEs) and their staff associations have strongly criticized the federal government's funding guidelines for 1979.

Only the Technical and Further Education sector (TAFE), which has been allocated an increase of 10.4 per cent, will receive extra revenue in the tertiary sector during the coming year.

The details of the guidelines, announced recently by Education Minister, Senator John Carrick, shows that the federal government's contribution to education (nearly 9 per cent of its expenditure) will fall slightly in real terms in 1979. The total figure will be $A1,894 million, a drop of $A800,000 based on December 1977 prices.

The total allocation for universities and CAEs is down from $A1,172 million to $A11.146 million. Capital grants have been reduced by $A33.6 million to $A52 million, but allocation for recurrent costs has risen from $A1,086.5 million to $A1,094 million.

The Tertiary Education Commission (TEC) has been asked to assess all major capital works programmes except those fully entered into before the announcement of the guidelines. The government has indicated that it expects capital expenditure in 1979 to be strictly contained within the funds allocated.

Senator Carrick said that after further consideration of budget priorities it might be possible to review the capital allocation for 1979 and the TEC had been asked to keep in reserve some high-priority projects which could be added in the recommended programme.

One small my of hope for universities and CAEs is the government's acceptance of the recent TEC proposal to reintroduce fixed recurrent financing for the 1979-81 triennium for everything except equipment.

Professor Rupert Myers, vice-chancellor of the University of New South Wales and chairman of the Australian Vice-Chancellors Committee, said that he was concerned at the small provision made for expenditure on buildings. He said this would increase problems for new, partially built universities and for older universities with top priority building projects

Mr Les Wallis, general secretary of the Federation of Australian University Staff Associations (FAUSA), said that "the Tertiary Education Commission and the advisory council might as well pack up and go home. The University Council made modest recommendations for funding which were drastically pruned by the Tertiary Education Commission. Now the commission has had its own recommendation slashed by the government".

The rise in the TAFE sector will increase spending from A$97.6m to A$116.5m, Senator Carrick indicating the government's intention of moving away from the promotion of academic qualifications to skill training. This amount includes A$6.5m of the additional A$72m the government undertook during the last election to provide for capital works in this area over the next three years.

The TEC and Schools Commission will now consider the guidelines and in due course will recommend policy decisions to the government.

Iceland

Job signs good for women

from Colin Narbrough

Women comprise 16 per cent of university graduates (or equivalent educational level) in Iceland. Of these 94 per cent are actively engaged in the labour market, according to the latest survey by the Icelandic Academics Association.

Out of a total population of 219,000, Iceland has about 900 women with qualifications from higher or further education. The study deals with a sample covering roughly one-third of them.

The statistics show that one-third of women graduates had teaching degrees, making teaching the most frequent profession for females completing higher education. In keeping with the strong tradition of sexual equality on the Icelandic labour market, more than 90 per cent of women graduates said they had equal income levels to their male counterparts.

State and local government employees recorded the highest levels of income equality, while a small group of private sector female graduates reported sex-bias differentials.

Though male students easily outnumber female students at universities in Iceland the sexes are almost equally represented until the end of upper secondary school (gymnasium), pupils (16-19 years).

South Africa

Drop in engineers

Concern about the declining number of students studying civil engineering at South African universities and warnings about the prospect of a serious shortage of qualified men to meet the country's needs for civil engineers are being voiced by leading members of the profession.

The South African Institution of Civil Engineers says that as a result of the steady drop in the enrolment of first-year civil engineers it is feared that there will be a severe shortfall in the number of graduates in the early 1980s. On a conservative estimate the profession needed about 300 new entrants a year. By 1981 only some 200 were likely to graduate.

Greece

More places for students

There will be 1,665 more places in Greek universities and colleges in the coming academic year compared to last year, according to the Ministry of Education.

There will be 12,665 places in the universities and 2,110 will be in schools. About 2,110 will be allocated at teachers' colleges, and 300 will enter the superior technical schools.

What kind of system after Rhodesian war is over?

John O'Leary reports on a private conference which discussed new proposals for Zimbabwean education

The attempted internal settlement in Rhodesia has stimulated renewed and urgent debate about the likely shape of the education system in a new Zimbabwean state. The differences of opinion, not surprisingly, are as fundamental as those over the settlement itself, since the character of education will be one of the major influences on life after the effective hand-over of power.

Present discussions are of more than purely academic significance because of the likelihood of massive investment in education if a political settlement, internal or external, received the backing of the West. The Zimbabwe Development Fund, included in the Anglo-American peace plan, would be unlikely to provide less than the £30m previously earmarked for education. Although rapidly changing political circumstances could preempt any decisions made now, none of the interested parties can afford to miss an opportunity to influence thinking on how such a sum could best be spent.

The delicate nature of the debate outside Rhodesia was underlined by a seminar on the subject held last month in London. Organized by the Council for Education in the Commonwealth, and the London University Institute of Education, it attracted many of Britain's most eminent observers of Southern Africa as well as 19 participants from Zimbabwe itself. However, although the event was important enough to attract five members of Government departments, it was kept private.

External agencies were anxious not to be seen to prejudice the chances of a peaceful settlement by favouring too radical a line, while those from inside the country welcomed the opportunity to speak frankly off the record. Mr Roy Manley, executive chairman of the Council for Education in the Commonwealth, described the seminar as "an enormous achievement" during which not one voice was raised in anger and politics were hardly raised. No firm recommendations were expected or reached, but the day was notable for the presentation of a report which is likely to carry considerable influence with supporters of the internal settlement.

The report, "An investigation into the possibilities for educational development in Rhodesia-Zimbabwe after a political settlement", emanates from the faculty of education at the University of Rhodesia. Its authors, Professors Norman Atkinson, Peter Gilbert, Elizabeth Hendrickx and Sidney Orbell, interviewed a wide range of people from a representative of Mr Robert Mugabe's Zimbabwe African National Union to Bishop Abel Muzorewa and other participants in the internal settlement, businessmen and educationists.

Professor Atkinson, in his introduction to the report, claims that the authors are in a particularly good position to produce an analysis of the possibilities. The neutral agencies of educational planning are said to be in an unusually disadvantageous position because of constitutional disputes and the agencies of international aid are often no longer able to effectively assess priorities or deploy resources to the greatest advantage.

However, the conclusions reached by Professor Atkinson's team received a predominantly hostile reaction at the London seminar, which he himself attended. Although the stated aim was merely to produce guidelines for use by a future government there was concern that the report would be accepted by default.

The professors' proposals are based on the concept of a "non-racial meritocracy" which would preserve educational standards while eradicating discrimination. Change would be introduced gradually, systematically bringing blacks up to the levels achieved by their white counterparts, rather than imposing total "Africanization" of the system immediately. Opponents of this approach argue that, regardless of its intention, it would perpetuate inequality and would not satisfy the desires of the African in the new Zimbabwe.

Even within the report this dichotomy is seen to exist behind the general agreement on general principles of a commitment to non-racialism and greater educational opportunity for all the people. While almost all Africans interviewed supported non-racial schooling, for example, European witnesses are said to have "displayed no opposition to the principle" but were deeply concerned about the threat to educational standards which might be represented by a precipitate programme of emancipation.

Africans generally accepted that English should be the teaching medium but believed that at least one African language should be taught: Europeans, however, showed "a varied reaction" to the question of African studies.

Among the less radical proposals are the retention of fees for schooling, albeit in conjunction with a wide range of scholarships and bursaries, the continued existence of independent schools and the rejection of busing to integrate schools. Schools would be zoned and the authors assume that Africans could be expected to move into the present European areas, thus achieving a racial mix naturally - an assumption hotly disputed by the report's opponents who foresee inadequate change at a snail's pace.

Compulsory education, a high priority for the African political parties, is recommended for implementation "very gradually in the primary sector, beginning with the upper grades". A full programme of compulsion might take two decades, the authors believe, and Africans would be expected to compete for places on an equal footing with Europeans. Secondary school places should increase by up to five per cent a year, with institutions expanding to produce the additional teachers needed to cope.

In post-school education, considerable emphasis is placed on non-formal teaching under the auspices of new regional adult training centres. The university itself, founded on the principles of academic autonomy and excellence, would have to pay more attention to relevance to the needs of the nation. The number of students on university level courses, now numbering some 2,000, could be increased by granting associate status to other institutions of higher education which do not require standard entrance qualifications.

With a rapidly growing demand for advanced training in scientific and technological subjects anticipated, the report also expects the polytechnics to play a key role. Courses at the two existing polytechnics at Salisbury and Bulawayo are closely aligned to the London City and Guilds qualifications and further aid from Britain is favoured for staffing and equipment, technical institutions, as well as for specialist teacher training and the provision of expertise in organizing public examinations.

The continuation of separate teachers is discouraged because of their lack of understanding of the environment and cultural traditions of Zimbabwe. Neighbouring countries are said to have been unhappy with their experience of overseas teachers.

Professor Atkinson's report has been studied by the Ministry of Overseas Development but a spokesman said a number of similar studies had been undertaken or were being produced. It would not be appropriate for the Ministry to take an official attitude to a private conference. Any decision on educational policy would rest with the Zimbabwean government. Inside the country, however, the report has created more interest and the activities accorded by those party to the internal settlement lead observers to believe it could carry significant weight.

At the same time, however, some of those at the London seminar felt the report's conclusions were unrealistic, greatly under-estimating the aspirations of the black population and over-estimating the prospects for change within the framework of the existing system.

The Catholic Institute for International Relations, which is shortly bringing out its own analysis of future educational needs in Zimbabwe, fears the emergence of a small black bourgeoisie filling the privileged positions of these Europeans who leave the country, leaving the vast majority of the population no better off than before. It sees the need for a much more dramatic change than the professors envisage.

Professor Terence Ranger, of Manchester University, was another at the seminar who believes the report's recommendations will mean little change. Proposals for education centres, close to rural areas would effectively mean a policy of separate development, despite the commitment to non-racialism. The authors were being unrealistic about the chances of such a system being accepted under a new regime, said Professor Ranger, who used to teach at the University of Rhodesia.

Nothing emphasizes this point of view so vividly as the policy of the black staff presently at the university, a small minority of the total staff. In a pamphlet published earlier this year they emphasized the need for "Africanization" of the curricula and among both academic and administrative staff.

Those non-Africans who identified themselves with the Zimbabwe nation would be able to vary, while remaining in their jobs, at their duty over the years, abstract African progress in appointment and promotion. Staff "could have to go."

Such a response, though not many British observers would dare to hope, seems more likely at the voice of the new Zimbabwe emerges from its post-mortem. There are those who hopes that Zimbabwe will develop an entirely new model of education to meet the needs of a country with, with 150,000 skilled workers, is it a better position to adapt to black rule? Whether or not this is any more realistic than Professor Atkinson's approach will inevitably depend on the success of current political negotiations, but it seems at least arguable as an attempt to produce change through the existing education system.

Picking out sunflower seeds to help school financers—what future system would be best for these children near Salisbury?

Revolution without the passion

from preceding page

the publication of the first volume from the last part this autumn. This is, of course, related to the ups and downs of British attitudes to the Soviet Union. *Soviet Russia* was conceived at a time when it seemed possible that the wartime alliance might turn into a lasting rapprochement, but was published when the cold war was at its most intense. Later volumes were written and published after 1956 when Khrushchev presented a more human Soviet face. The last parts have been published since 1968 when British attitudes to Russia have again become more frosty.

In this light it is interesting to compare two reviews in *The Times Literary Supplement*, separated by 20 years, of the first and the last volumes of *Soviet Russia*. The first, in 1951, is harsh and condemnatory. It accuses Dr Carr of "an obliquity of viewpoint which suggests some irresolution or evasiveness towards the basic issues of the study". The conclusion is that "his conviction of the legitimacy of revolutionary power has produced a book on the Bolshevik Revolution which is in the last resort an act of faith rather than of analysis".

In 1971 the criticism is almost the reverse. Now Dr Carr has "a remarkable ability to remain coolly dispassionate and personally uninvolved in the events he describes". The (anonymous) reviewer adds: "In a historian this objectivity is highly laudable and it lends authority and conviction to Mr Carr's writings." His conclusion is that with the price of the book puts it out of reach of many young people.

Dr Carr has changed as well as his critics over the past 30 years. "History does not stand still. Nor does the historian", he admits. "Writing today I should shape my first volume very differently." The main change he would make could be to place less emphasis on the formal constitutional arrangements made by the new Soviet State and more on the geographical, social and economic environment in which it operated.

A History of Soviet Russia is now acknowledged as an historical classic but it remains an ambiguous one. Its scholarship is no longer in any doubt as volume after volume has shown that no one has read more of the evidence and reflected on its meaning, in fact know more about Russia in the first ten years of Soviet rule than E. H. Carr. Yet as a work of historical imagination it still sometimes disappoints its many readers.

Another historian put it this way: "It is not sufficient explanation to say that E. H. Carr is not a Gibbon or Macaulay—although he is a fairly dull writer at times. The effect of writing minutes in the FO for all those years still shows.

"The real reason is that the Russian Revolution appears as a grand theme of history, as grand perhaps as the decline of the Roman Empire. But both the theme and Carr's treatment of it fail to live up to this promise of grandness—the theme because few people today are prepared to say of the Russian Revolution what Fox said of the French Revolution 'How much the greatest event it is that ever happened in the world! and how much the best!', and Carr's book because one feels he is too dispassionate, he seems to feel too little—and that, of course, is tied up with his whole view of history."

It is this lack of passion, this refusal to judge, that both contributes to the dryness of *Soviet Russia* as a work of literature and helped to provoke the criticism that it is a pro-Bolshevik book. Dr Carr believes that the historian should make as few judgments as possible, particularly of individuals. So he attempts to consider Stalin as dispassionately as if he were Peter the Great. Not surprisingly perhaps he does not entirely succeed and many resent the extent to which he does.

He stated his view of history most clearly in the Trevelyan lectures. "We are born into society, we are born into history", he said. "No moment occurs when we are offered a ticket of admission with the option to accept or reject it. The historian has no more conclusive answer than the theologian to the problem of suffering."

This particular passage has been strongly attacked by more moralistic historians. The famous Dutch historian, Professor Pieter Geyl, said that this philosophy of history reduced the historian's task to the justification of the present. "The way in which Mr Carr absolutizes his demand that the historian should abstain from moral judgments, that he should unquestioningly accept what is decided by the mysterious world force he supposes makes history without consulting us, revolt me."

In fact Dr Carr is far from being a determinist, although he quotes Hegel with approval and admits that he has been influenced by Marx. His remarks were really aimed at those liberal historians who attempted to replace the dwindling ethical force of religion with the artificial morality of history. His starting point is not really so far from that of his opposite, Sir Lewis Namier.

Indeed he does not exile moral absolutes from the study of history entirely. He regards them as indispensable categories of thought—but ones that are decaid of meaning or application until specific content is put into them. In his Trevelyan lectures he used the metaphor of a cheque. "The printed part consists of abstract words like liberty and equality, justice and democracy. But the cheque is valueless until we fill in the other part, which states how much liberty we propose to allocate to whom, whom we recognize as our equals, and up to what amount. The way in which we fill in the cheque from time to time is a matter of history."

The paradox is that E. H. Carr, whose view of history is often regarded as essentially amoral, should also be regarded as a man of the left. Yet the two are linked, not opposed. He was born into a world of strong values, into the nineteenth century and he saw many of these values undermined during the Great War. He later wrote: "After the First World War and the abortive peace that revealed the bankruptcy of liberalism, the reaction could come only in one of two forms—socialism or conservatism." He has never doubted which side he should be on.

Unlike so many contemporaries the experience of the war did not incline him towards cultural pessimism but rather towards the optimism of change. He recalls: "Suddenly I had the great feeling that the world was moving, changing." It was his determination to understand this process of change which made him both a man of the Left and a historian.

The feeling has never left him. He writes because "change is no longer treated as an achievement, as opportunity, as progress, but as an object of fear". He regards many of the younger generation of historians as "dim" because they concentrate on the small and the trivial. That, too, he attributes to the feeling that change, that history, has become "menacing", although he believes that the growing fear of being labelled a Marxist is a powerful subsidiary cause.

Yet E. H. Carr, at 86, is not infected by such gloomy doubts. Something of the spirit of the Edwardian world survives in him. He has never lost the normality of the Berwick-on-Tweed radical. "When Sir Lewis Namier writes no-to-scrhew programmes and ideals, and Professor Oakeshott tells me that we are going nowhere in particular, and Professor Popper wants to keep the door old Model T on the Edwardian world survives in him. He knocks screaming radicals on the nose, I put back not on a world in tumult and a world in travail, and shall answer in the wellworn words of a great scientist: 'And yet it moves.'"

Robin McKie sorts the facts from the myths surrounding Europe's biggest engineering project

Shetland counts the social cost of the oil invasion

Like all remote islands, Shetland abounds with stories and myths. Many are connected with the Islanders' ancient heritage but a substantial number now relate to the oil invasion and its impact on the local way of life.

And no doubt a good proportion are solidly based on fact. Any project on the scale of the Sullom Voe terminal, the giant depot that is the focus of oil activity in Shetland, is bound to attract labels which claim it is the "greatest construction effort ever undertaken in Britain" or "the largest engineering project in Europe". At an estimated cost of £679m, and with an investment of 33 oil companies and work covering 1,000 acres, these epithets certainly seem justified.

But others have less basis in truth. In particular, one myth stresses that the Shetlanders managed to negotiate a strong, sensible deal for themselves in their talks with companies.

At first, during the initial negotiations in the 1972-74 period, this was probably true. Then the Shetland County Council forced deals which limited the oil companies to one site, secured promises of compensation for disruption to the local economy, and entered into commercial deals which would give Shetland profit from North Sea oil.

But many Islanders suspect the oil men exaggerated the extent to which they were "taken to the cleaners" by the council. Indeed, the concessions seem less impressive compared with the massive, multi-million pound impact of an oil industry on an island of only 20,000 inhabitants.

It is this interaction of tiny communities with giant commerce that provides a fascinating microcosm of industry in conflict with society. And the Shetlanders are well aware that they are under the microscope of close scrutiny and there is now a growing awareness that there are many aspects of this massive investment programme which were impossible to predict at the time.

John Graham, headmaster of the island's main educational unit, the Anderson High School, provides one of the most telling examples. Such was the shortage of local labour needed to cater for the construction workers at their camps near Sullom Voe that fifth and sixth year pupils were bussed there to act as cleaners. For 11 hours' work, five days a week, these 16 and 17-year-olds were paid an incredible £51 a week.

"It is almost a sin to family to these kids that this is how easy it is to obtain money", he added. By offering disproportionately large wages for menial tasks, the companies are siphoning off young labour that would normally men in the Shetland's traditional industries of fishing and knitting. And many fear that when the oil men eventually depart from this "cold Kuwait" in several decades, they will leave no other industry behind, completely destroying any sense of community continuity.

"We are beginning to see some of the social trends emerging", said Mr Graham. "But what can you do to alter them when they stem from a multi-million pound investment in your midst?"

One attempt is made in the high school, a unique educational establishment where normal classes are held as well as further education courses in subjects such as nautical studies and engineering. It is a bid to retrain people in the skills needed to sustain the traditional industries such as fishing which could otherwise be lost when the oil men leave.

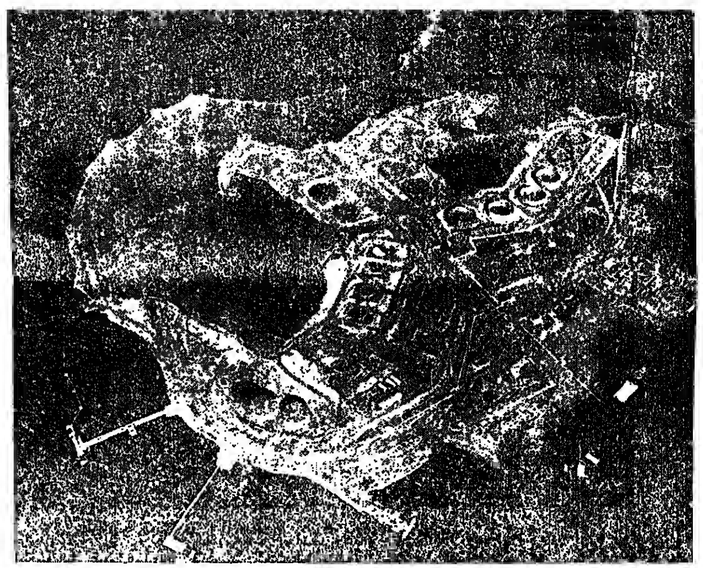
However, this is only a small-scale effort. The main impetus has come from the Shetland Island Council, which succeeded in running a council after Scottish local government reform. It will benefit financially in five ways from the oil terminal: increased rates and also rents from the site, harbour dues, disturbance cash and participation in commercial oil-related enterprises. This last category has involved the council in holding majority stakes in Grandmet Shetland Ltd, managers of a major construction village, and Shetland Towage Ltd who will provide the tug services for tankers arriving and leaving from Sullom Voe harbour.

But planning director Mike Fenwick is pessimistic that this will be enough. "That money will have to be used to build a whole new economy when the oil men leave. Even if we manage to get about £20m, that is not a lot of money to carry on the task."

The council could spend the cash like ground lightning, he added, but it had to be saved so there would be another mass emigration, similar to the one which cut the Shetland population from 30,000 in the nineteenth century to 17,000 in 1966. It was a trend that had only just been halted before the oil men arrived.

And although BP, the company responsible for overseeing the construction and running of the terminal, claim good relations with the council, Mr Fenwick had harsh words for some of the oil companies' actions.

"Individually they are quite human but collectively they are naive to the point of disbelief. They think they can pull the wool over our eyes quite easily", he added.



The east 1,100-acre complex of Sullom Voe. Oil is expected to start flowing into the first of the giant storage tanks later this year, although construction work will not be fully completed for a further two years.

Now the council are pressing for greater control of the giant tankers which will approach Sullom Voe for loading. "We want specific channels for these ships and far greater fines when they break regulations", Mr Fenwick added.

"At present the maximum fine is £50,000. That is peanuts. It represents only about one three-hundredth of the price of the tanker's load. What we want are fines of the region of at least £500,000."

The danger of oil spillage was a main hopeful in the setting up of an environmental advisory group, a unique combination of representatives of the oil industry, the council, academics concerned with ecology and others. The original Sullom Voe Environmental Advisory Group was disbanded in 1976 after recriminations that there was bias in favour of the oil companies and was replaced by the Shetland Oil Terminal Environmental Advisory Group, under an independent chairman, Professor G. Dunnet, of Aberdeen Universities zoology department.

The group has an annual budget of about £70,000 and is involved in constantly monitoring for pollution near the terminal. But Professor Dunnet warned that even with proper channels and advanced navigational aids, it was impossible to prevent human error causing a disaster on the scale of the Amoco Cadiz breakup.

"The degree of damage would depend on the time of year but oil would be whipped round the Islands by fast currents and tides. The inshore fishing industry would be very badly affected and it would be disastrous for the seabird colonies on the Islands."

But he stressed he was relatively optimistic for the environmental prospects for Shetland. "I think the capabilities for deterring environmental changes are as good, if not better, than any other equivalent project in the world."

And he added that at a recent oil pollution conference in Denver, he had found no evidence of any other group like SIDEAC which allowed local men, including fishing industry representatives, to confront oil industry personnel with their fears about possible effects to the local fishing and ways of life.

But most Shetlanders remain deeply suspicious. Only a small fraction have benefited financially and it is becoming increasingly hard to ignore the long-term social and economic repercussions. These range from minor problems such as parking in the main streets of Lerwick, the main town, to the rapidly rising cost of buying a house and to the destruction of fishing grounds. In particular, this has occurred because of pipelaying and from the indiscriminate scattering of debris from oil works out in the sea bed.

A measure of this public rejection can be gauged from a vote taken at the islands's debating society, the Althing, named after the former Shetland parliament. When a motion was proposed that "North Sea oil ensures a bright future for Shetland", it was defeated by 140 votes to 20.

In hearing the result, the then chief executive of the council, Ian Clark, the man regarded as the principal negotiator of Shetland's "strong deal", merely remarked that it showed the islanders had good sense. Only time will tell just how sensible they have been.

Graduates return . . . to menial jobs

The distortion induced by planting an immense engineering construction in the middle of a remote Scottish island is immediately evident on arrival at Shetland's tiny Sumburgh airport. Hordes of construction workers fill the prefabricated terminal building, lounging on seats awaiting helicopter transport to rigs and forming long queues for plastic trays of pie, beans and chips from the meagre canteen.

More air traffic now passes through the airport than at Terminal One, Heathrow, although work is only just beginning on a £16m development of buildings there. A measure of its rapid increase in use can be gauged from the fact that on one day in 1977 more flights passed through the airport than did in the whole of 1976.

At Sullom Voe itself, on even greater disruption is evident. A vast mass of 10 million cubic metres of peat and earth has been ripped from the hillside and used to fill in a complete sea loch, Orka Voe.

A dozen huge storage tanks are being built there and these will be used to store crude oil supplied through the Brent and Ninian pipelines from the North Sea fields. It is expected that at first the terminal will deal with about 50 million gallons of oil a day, although its capacity is more than double this.

Natural gas will first be separated from the oil and will then be refrigerated before both are shipped off in giant tankers heading north through Yell Sound.

The project has so far involved more than 3,000 construction workers and masses of landmoving equipment which have turned a remote peat basin into a vast building site that would be out of place even in a city. But resident engineer Piet Van der Borek was confident the landscape would not be left in a blighted condition. Each tank will be painted light green and the land laid out with grass.

"It will be beautiful here by the time we are finished", he added.

This vast influx of engineering enterprise, for all its damage to the local way of life, has at least brought about a return of the Shetland's most gifted young people. Headmaster John Graham, of the Anderson High School, reported that about half the students who left to go to universities were now returning to the islands. "A few years ago, only 5 to 10 per cent were coming back", he added.

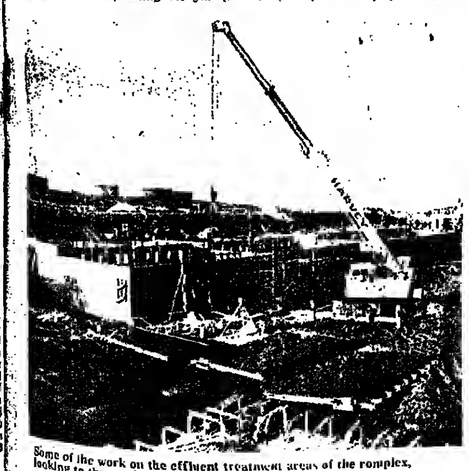
But it is hard to find any evidence that they will achieve any real fulfilment in the jobs being offered by the oil companies in Shetland.

Although 500 Shetlanders are employed at Sullom Voe, these men are used as mere construction workers. The 60 senior BP personnel responsible for supervising the work, including civil, mechanical and cost engineers, are nearly all experienced oil workers brought in from other areas by the company.

And the prospects for those wanting to work in the operation of the terminal are equally dismal. Although 50 per cent of the staff will be local men, these will work as jetty operatives, loading tankers, and process workers. The senior posts will go to experienced oil men again, including the mechanical, planning and electrical engineers needed to supervise the gas and oil separation work and other aspects of the terminal operation.

And one BP spokesman said they had no plans to introduce any form of scholarship to help local students through university engineering degrees. "There is not enough time left to help those who could work on the construction and it is unlikely many engineers will be needed for the terminal's operation."

Sadly, these young graduates will probably take jobs at the terminal which are well below their capabilities because of the high wages and good prospects elsewhere.



Some of the work on the effluent treatment areas of the complex, looking to the north of Sullom Voe.

Margherita Rendel and E. M. Ettorre (left) on grant discrimination and Stanley Johnson on intake

Battle of the sexes on university conditions

Money does not come easily

The grant regulations and the attitudes of men reflect two forms of discrimination against women. Both reflect systematic discrimination which may or may not operate systematically.

The Equal Opportunities Commission has drawn attention to the inconsistent and often inflexible rules for discretionary awards, that is their unsystematic quality. The commission also drew attention to the ways in which rules for discretionary awards tend to operate more harshly against women than against men; that is the systemic discrimination.

Systemic discrimination may be direct or indirect. It may operate against women or married women as in the case of grant regulations which treated married women differently from married men. It may be indirect, applying a rule equally to both sexes and married and unmarried alike, but a rule which is not justifiable and which operates more harshly against one sex than the other.

Lack of money keeps women out of higher education; the Open University found that 36 per cent of housewives, compared with 4 per cent of those employed in education and 25 per cent of manual workers, did not apply for this reason.

A pilot project, financed by the SSRC, on student records held at the University of London Institute of Education throws light on what has been supposed to men and women students. A working party on the implications of the Sex Discrimination Act found that over an eight-year period women doing the Academic Diploma in Education had always been less likely than men to receive financial support, although the total number and the proportion of women had increased substantially. The implication was that there might be discrimination among bodies outside the institute.

The results of the project show that the total number of students has increased by 28 per cent between 1971-72 and 1976-77. Women now constitute 45 per cent of the total student body. There are now more man than women doing the PGCE and equal numbers of men and women on the 16 Institute Diplomas for which enrolment varies from six to 51. On the more academic courses the enrolment of women has risen most markedly: by 61 per cent for the Academic Diploma in Education which serves as a gateway for higher degrees, by 123 per cent for the MA and by 89 per cent for the PhD. But men constitute 55 per cent of the Academic Diploma and more than 60 per cent of the higher degree students.

Women tend to predominate on the small specialized courses concerned with the sort of topics they are expected to be interested in: younger children, those needing care such as the handicapped, and expressive subjects. Do these results reflect choice by students who are, after all, influenced by social assumptions about what is appropriate for women? Or is it easier for women to obtain financial assistance for such courses?

We examined three years, 1971-72, 1973-74, and 1976-77, and divided courses into four main categories: (1) the PGCE, (2) the Academic Diploma, (3) higher degrees, and (4) the specialized diplomas.

The proportion of women on PGCE had decreased by 9 per cent and of those receiving financial support by 10 per cent, although financial support is mandatory. Men had increased by 9 per cent and their financial support dropped by only 2 per cent.

In the Academic Diploma both the number and proportion of women have increased, but the proportion who receive financial aid have decreased from 52 to 43 per cent. In this, the women have fared somewhat less badly than the men but at all times women have been worse off than men, although the gap has tended to close.

On the taught master's courses, both the number and proportion of women students and of women receiving financial aid has increased. Substantially more men received financial aid in 1973-74 than in the earlier or later years, but women have now caught up with the men.

Both the MPhil and the PhD are research degrees with more students registered for the MPhil, women consistently making up about a third of the students. The improvement in financial aid for men came between 1971-72 and 1973-74 but for the women not until 1976-77.

The number and proportion of women PhD students has increased. Both the number and proportion of women receiving financial assistance has increased substantially so that now the proportion of each sex receiving support is almost the same.

The specialized diplomas present a different pattern. Man and women are enrolled in virtually equal numbers, but their distribution is uneven. Educational administration and educational rehabilitation are overwhelmingly male. For educational administration, women are much less likely to obtain financial aid.

Secondary education is the next most "male" diploma. The most "female" are child development, deaf children, the physically handicapped, English as a foreign language and handicapped children. When the numbers of students receiving financial aid are aggregated for the three years examined, women tend to be proportionately less likely to obtain financial aid for "male" than "female" courses.

Thus only 46 per cent of the women compared with 74 per cent of the men doing the diploma in educational administration received financial aid. The converse does not apply except for the diploma in the rule of language but there the figures are 71 per cent for the men and 87 per cent for the women.

Proportionately more women received financial support for institute diplomas than for any other courses although still proportionately fewer women than men received such support. This, it appears that women are less badly off at this level than elsewhere, provided they stick to traditional "feminine" subjects.

Implications of these results are:

- Women are less likely than men to get financial support.
- The number and proportion of women doing higher degrees has increased over the past six years, as have their chances of obtaining financial support; but women still remain substantially fewer.
- Women seem most likely to get financial support for lower level courses on "feminine" topics.

The majority of students at the institute would require discretionary rather than mandatory grants. A number are married women returning employment. The Equal Opportunities Commission also found that women are less likely to get grants for "masculine" courses. It seems possible that more women than men do not make or pursue applications for courses because of financial difficulties.

Discrimination existed in regulations for mandatory grants. Women who were affected by those regulations suffer the consequences of past disadvantage although the regulations have been amended. Our findings suggest that women seeking discretionary awards are treated differently from men. Even where the regulations are the same for each sex, indirect discrimination still seems to further disadvantage women. This is particularly true of the expectations for their daughters, and husbands, because of jealousy of their wives' obtaining education, are unwilling to pay their full assessed contribution. If grants were mandatory and payable in full to the student, the contribution could be recouped through the parent's or spouse's income tax.

Dr Rendel is a research lecturer in human rights and education in the Institute of Education, University of London. Her co-author was research assistant on this project.

Numbers and percentages of WOMEN students on courses and receiving financial aid

TABLE 1

Course	1971/72 No. students	%	No. receiving fin. aid	%
PGCE	216	58	215	56.6
Inst. Dips.	170	47.9	142	46.9
Ac. Dip.	85	44	44	29.1
MA	59	32.2	11	17.1
MSc	16	57.1	6	46.2
MPhil	57	33.7	11	28.9
PhD	20	25.9	6	30

TABLE 2

Course	1973/74 No. students	%	No. receiving fin. aid	%
PGCE	204	57.1	192	57
Inst. Dips.	173	43.5	161	50.3
Ac. Dip.	88	38.9	43	30
MA	80	33.4	29	22.3
MSc	25	48.1	13	38.2
MPhil	62	34.4	15	21.4
PhD	33	29.2	10	17

TABLE 3

Course	1976/77 No. students	%	No. receiving fin. aid	%
PGCE	213	49	191	47.7
Inst. Dips.	186	49.9	138	48.4
Ac. Dip.	138	45.4	59	41.8
MA	131	44.5	57	47.2
MSc	26	51	20	54.1
MPhil	72	34.8	41	39.4
PhD	53	30.1	33	30

Notes

The percentages in the second column show women as a percentage of all students on that course. The percentages in the fourth column show the women receiving financial aid as a percentage of all students on that course receiving regulations.

Ac Dip—Academic Diploma (now called Diploma in Education).

Inst Dips—Diplomas granted by the institute rather than the university, mostly specialized and do not normally give access to higher degrees.

Academic social scientists do not always communicate about methodology with those who take the census (as in George Cruikshank's cartoon). Martin Bulmer who has had a foot in both camps offers some guidelines.

Gulf between research and policy

What are the conditions which will promote good policy research in Britain? Recent discussions of policy studies and the British Brookings (see *THES* March 24 and April 14 and 21) have paid rather scant attention to the methodology of "policy studies", to what "research" in this area actually means. What are the problems of organizing and conducting social research with policy relevance? Does such research differ significantly from more conventional research conducted within the framework of particular academic disciplines such as sociology, political science or social anthropology?

Is British higher education (and particular disciplines within it) really geared up to respond to the demands for social research which are increasingly being made upon it? Recent growth in this country is still very modest by comparison with the United States, where the federal government currently spends in excess of $500 million (£275 million) on social research annually, two-thirds on applied research. This is one measure of the sort of take-off which might occur in this country in the future. (For comparison, the SSRC budget in 1977/78 was £14 million, though this is by no means the only source of government expenditure on social research.)

If such expansion occurs, what kinds of social research would be involved? Who would carry it out? What are the obstacles to developing well-informed policy research grounded in academic social science? Clearly it is difficult to generalize. There is a wide range of institutions involved in policy research, there are different forms of organization, and different academic disciplines contribute in different ways. For instance, economics is an exception in a good deal of what follows, though the reasons for its exceptionality are themselves of interest. Yet certain trends are clear.

If social science research in post Robbins Britain has already grown rapidly, applied social research for policy has grown even faster. There is now a sizable professional community of full-time social research workers scattered over central and local government, quangos, independent institutes and research agencies, commercial research firms, voluntary associations and universities and polytechnics. A 1972 SSRC survey identified nearly 1,200 social science research organizations or departments, more than two-fifths of them outside higher education. Particularly large concentrations of staff are to be found in central government research divisions, commercial research firms and independent non-commercial research organizations. Local authority social research units are growing rapidly.

The scale of contemporary social research is considerable. Not only are several thousand social scientists employed in it, but estimates suggest, for example, that four million social survey interviews are carried out in Britain every year. Moreover, in a census year (the next one is in 1981) every head of household is required to fill in the census schedule. But such "social research" is not homogenous. Research differs in its sponsorship. Some is financed by commercial interests; some by government; and some by independent foundations or the research councils. It differs also in its content. Most commercial market research is not policy research. A good deal of basic academic social science research, at the other extreme, does not have direct policy relevance. But in between there are several types of social research which have significant relevance and impact for policy. Not much has been heard about them in recent debates about the merits of policy studies. Perhaps in part this is because their academic bases are somewhat tenuous.

Several different kinds of social survey research are cases in point. The public opinion polling arm of market research, in Britain almost entirely a commercial activity, has weak academic links. (The LSE Library does not even subscribe to the *Journal of the Market Research Society*.) Surveys of voting intentions now reach a wide audience. More recently, similar techniques have come to be extended to a greater range of social issues. There is a certain plausibility to the view that such research can tap "what people want". Democratic government is responsive to the wishes of the electorate; polling on an increasing number of issues provides (it is supposed) direct knowledge of these wishes.

Academic criticism of public opinion polling has been sharp on methodological grounds. Some techniques are criticized for over-simplification. Partly scepticism rests on the definition of "opinion". Not infrequently, people's attitudes are elicited in a theoretical vacuum. Critics argue that the theoretical and value implications being posed (eg preferences about rehousing) need to be much more carefully spelled out. A third objection to such research is political and constitutional, that it may create bandwaggon effects, usurp the roles of politician and civil servant, and treat each individual's opinion as equal however inappropriate that may be. (Whom should one poll about aircraft noise: those who live near airports, or a cross-section of the population as a whole?)

Other types of surveys than polls probably have greater policy impact in the medium to long term. Large-scale surveys to collect objective data are carried out for policy-makers by the Social Survey Division of OPCS (the most reputable social survey organization in the country) and by independent research organizations such as SCPR. Such surveys vary in size from samples of around 1,000 upwards (the typical academic sociological survey is of a 100 or 200). The biggest are the large-scale continuous surveys—the Family Expenditure Survey and the General Household Survey—which OPCS carries out for other government departments. These are an increasingly important source of data for policy; for instance, the GHS is one of the best sources of current data on morbidity (ill-health) in the population. Following the cancellation of the mid-term 1976 census, both central and local government will come to rely even more on such sources, or to mount special surveys of their own (such as the mammoth DOE national dwelling and housing survey of 375,000 households recently undertaken).

Academic input to professional survey research is again very slight (though not entirely absent). There is in Britain no large university centre for survey research such as exist in Oslo, Paris, Jerusalem, New York, Chicago and Michigan. (The SSRC Survey Archive at Essex is a repository of data collected by others.) The well-publicized demise of the SSRC survey unit in 1975 ended one attempt to develop such academic expertise. The apparent lack of SSRC policy following this closure is probably indicative of academic ambivalence about such institutes, as well as of the state of disciplines such as sociology and political science which could nurture them. Survey research centres mesh uneasily with the departmental structures conventional in universities. Academic standoffishness further widens the gulf between professional survey research and academic social scientists.

Distinct from survey research is the census of population, carried out by OPCS and the Scottish General Registec Office at 10-year intervals to gather data from the whole population on subjects suggested by government departments and local authorities and approved by Parliament. Academic researchers are users of census data and are consulted in the planning of each census. But the conduct of censuses is in the hands of government statisticians.

Indeed, the work of the Government Statistical Service as a whole, of which the census is a small part, is another example of policy research (though the use of the word "research" is debatable) which is rather far removed from academic social science. Though active links are maintained with academic statisticians through the Royal Statistical Society, it is fair to say that contacts with academic social scientists (other than economists and demographers) are relatively slight.

In some disciplines, like sociology, trained scepticism about the usefulness of official statistics seems to be the norm. Conversely, official statisticians tend to avoid thorny theoretical questions (such as the definition of terms like "deprivation") which social scientists regard as important.

If some types of policy research suffer from poorly developed links between higher education and other research organizations, another type of policy research perhaps lurks unseen in the academics' midst. In all the talk about new initiatives, the existence of a good deal of applied social research in particular substantive areas such as industrial relations, medicine, organizational behaviour and criminology has gone largely unremarked. New developments in policy studies will come at least as much from the consolidation of existing work in such areas as it will from bright new institutions. Already such research has fed into the policy-making process through its contribution to the work of Royal Commissions; for example, the large amount of research on industrial relations carried out for the Donovan Commission. If so many have been speaking praise without realizing it, perhaps a certain amount of introspection is in order. Case studies of the successful promotion and management of applied research could be very worthwhile. For instance, the history of the well-funded, successful and prestigious Medical Research Council would repay study.

Instead of this, of course, much more attention has been given to what some have dubbed "experimental social administration", namely action research. The two principal examples of this have been the Educational Priority Area (EPA) and Community Development Project (CDP) programmes of the last decade. Both were planned to bring together research teams based in universities or polytechnics with action teams located in particular local authority areas. The rather eloquent history of the CDP in particular has demonstrated how much British social scientists have still to learn about the technical problems of conducting evaluative research. There is as yet no sign that its enormous vogue on the other side of the Atlantic has caught on in Britain to any great extent, nor that its technical complexities are adequately understood.

However, there is still much discussion about what is "policy studies". Instead of institutional blueprints perhaps what is needed is a more theoretical analysis of some of the problems of applied research. The contribution of social science theory to policy research needs to be carefully examined.

One should also recognize the incompatibilities there may be on the part of both the user and the producer of applied research. Ministers and senior civil servants, as political scientist L. J. Sharpe has pointed out, do not necessarily welcome social science. Very often they are over-supplied with information and do not require yet more to help them reach decisions. Nor does the monitoring of policy seem attractive in many circumstances, since it may offer up too many hostages to political fortune. Time considerations and the fact that academics tend to be oriented to concepts, policy-makers to specific problems, are further blocks. Often political administrators are unable to assess the validity of what social scientists tell them, due to its technical content. Procedures for the review of social research proposals in central government are inferior to the peer review systems of the research councils.

On the other hand, academics are not always well suited to provide policy research for government. Their conclusions tend to be more cautious or indefinite than policy-makers like. Values intrude, not only in the sense that social scientists have values, but that these often conflict with the values of policy-makers. Many social scientists find it difficult to play the role of guest in the way that is expected of them. To the extent that the social sciences look critically beneath the surface of things, this is likely to make their relations with policy-makers uneasy.

There are thus powerful intellectual obstacles in the way of bringing social science to bear on policy-making, reinforced by the tenor of British political culture, the modes of recruitment of political and administrative elites, and the homogeneity of the political class. By comparison with the United States, the ruling echelons of British society are certainly much less receptive to the potential contribution of the social sciences to public affairs. Nevertheless, social research that is relevant to policy seems very likely to expand further in the foreseeable future.

For such developments to occur, however, higher education must surely be in a position to contribute. Though the expansion could conceivably take place outside. This is not just a matter of willingness to mount research, but to educate the next generation of social researchers. There is disquieting evidence of failure to do so. Westoby *et al*, in *Social Scientists at Work* (see *THES*, April 30, 1976), found that even those with postgraduate degrees, among their sample of 2,500 social science graduates, had to develop particular research skills after leaving education. At least one third of their sample had to pick up statistical knowledge, computing knowhow or sample survey techniques after starting employment. SSRC surveys in the early 1970s showed striking lack of familiarity with quantitative methods among graduate students in several disciplines, particularly sociology, political science, economic and social history and social anthropology.

Nor are such deficiencies lacking in academic staff. Keith Hope of Nuffield College has put the matter most astringently, referring to what he calls the antiquantitative culture of contemporary British social science, and suggesting that British sociology leaves much to be desired from a technical point of view. "Sociologists by and large (he writes) claim they are practising a theoretical discipline in which empirical evidence is the arbiter of theory and opinion. One naturally expects, therefore, in surveying the hundreds of sociologists now at work in Britain, to find a significant proportion of them busily engaged in prosecuting longitudinal inquiries, panel studies, twin studies, controlled trials, double-blind experiments . . . and reporting the results in journals. In fact they are doing virtually none of these things. With a few exceptions they are lecturing, writing books about books, engaging in journalism, and talking about the thesis they never quite finished. . . . In consequence, as one would expect, their empirical work is lacking in expertise. In particular, they are incompetent to undertake investigations which require knowledge of quantitative techniques."

Such failings in graduate education and in the knowledge possessed by some academic staff are reinforced by the profound and continuing failure, referred to earlier, to institutionalize social research methodology in universities and polytechnics. The gulf between academic social science and many of those most actively engaged in social research for policy-makers seems to be getting wider rather than narrower. This is due in no small measure to the failure to communicate about methodological problems, in which non-academic research centres often possess greater expertise than academics. Both sides are the losers. Even several million pounds from SSRC and the foundations will not necessarily rectify such a serious hiatus at the boundary between research and policy.

The author is lecturer in social administration at the London School of Economics and Political Science. He previously worked in the Office of Population Censuses and Surveys.

The misty concept of counselling at the Open University

Counselling, as Ethel Venables wrote in her valuable little book on the subject, is as old as the hills. However, it remains one of those activities which defies accurate definition. Over the past few years, as senior counsellors with the Open University, we have seen various theories of counselling advanced and rejected. Indeed there are some academics within the university who regard it with more than a little scepticism, arguing that while it is all very well in small doses, it consumes too much of the tutorial budget and for this reason should be radically reduced.

Since OU students are studying mainly on a part-time basis within a multi-media teaching system, it is only right that the university should be concerned with the inevitable problems which many of its students will experience. For this reason, it has devoted considerable time and resources to the provision of a counselling service. However, we would argue that some of the wider claims made for the efficacy of counselling need to be more closely examined since the entire concept within the OU framework is exceptionally misty.

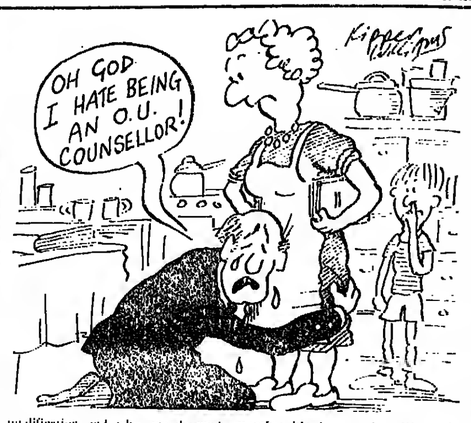
It is a commonplace that Open University students differ from those in other areas of higher education in age, status, geographical location and previous educational attainment. Because of this, counselling has become an important ingredient of national and regional tutorial policies. As the Open University has grown these policies have of necessity been modified to suit different local needs—Scotland, Wales and Northern Ireland are cases in point.

However, what is regarded as counselling in an Open University context might be seen as a useful administrative back-up service in another. Counselling has become a useful label to describe a wide range of activities which also happen to occur in conventional institutions of higher education.

There are those who claim that the university, because it cannot provide adequate face-to-face academic tuition, relies on the counselling service to sort out those student problems which inevitably emerge because of this paucity of tuition. Counselling, in effect, becomes a surrogate for advise and instruction.

In spite of some opposition, the Open University's policy on counselling underwent a rapid change in 1976 when counsellors were redesignated as tutor-counsellors. These hybrid teachers now undertake the marking of student assignments in addition to the varied counselling problems which they have to deal with. Under the present system the tutor-counsellor is appointed with regard to proximity of his students. This is very important since, although the university puts no obligation on its students to attend local study centres, it expects the tutor-counsellor to be within reasonable distance of a student's home and to make some regular contact.

An examination of the role of the tutor-counsellor reveals that, if carried out to the letter, it is not only onerous but downright impossible. However, the effectiveness of the tutor-counsellor, especially in a student's first year is vital to that student's chance of success. This is particularly true of those students who lack any formal educational



qualification and who are deemed by the university to be "at risk". Indeed many former students have paid tribute to the help they have received from their tutor-counsellors when they were most likely to have dropped out.

But given the academic responsibility for teaching the foundation courses with soundness and integrity, together with the marking of assignments, which are the essence of the OU's continuous assessment policy, what proportion of his energies can the tutor-counsellor devote to the counselling aspect of his duties?

Despite an assumption that he can offer wise counsel on degree patterns and course choice, help over family and workplace obstacles to study, not to mention guidance on future career opportunities, the Open University tutor-counsellor is only an average human being! For an academic, often a young member of staff in a conventional university who is supplementing his income by OU work, and also broadening his experience, the temptation to concentrate only on the academic commitment is very real.

If he does spend a lot of time on counselling, dealing with the varied and varying needs of his mixed bag of adult students, it is an activity which is extremely hard to assess in terms of effectiveness. His marking on the other hand—regularly monitored so it can be placed in terms of a national norm—is subject to assessment and grading.

Our measure of the effectiveness of the counselling activity is inevitably the survival in the Open University's teaching system of that small band of students who lack any previous formal experience of post-school education. That a bus driver who left school at fourteen 30 years ago manages to survive in the OU system at all is a tribute to his tenacity as well as the help he receives from his tutor-counsellor. But is it the academic support or counselling which gets him going efficiently towards a degree? Who knows?

Undoubtedly, effective counselling of part-time adult students calls for skills over and above those normally used by teachers working in a conventional setting. However, some of the claims made for counselling in the Open University seem to us ludicrously fanciful. The university certainly benefits from the wide expertise and dedication of its part-time staff but even they are hard put to solve the academic, let alone the personal problems of those entrants who just cannot cope with the foundation courses. This is particularly true in mathematics where the language is too Byzantine and where no amount of skilled counselling can serve the ill-prepared student.

In many cases the best form of counselling for some should be at the admission stage where unrealistic hopes need to be dashed. Done kindly, we affirm, this can save a great deal of despair later on in the year when the student realizes he cannot comprehend the material. It is difficult to ascertain whether the downward trend in Open University pass rates can be attributed to an increasing proportion of less qualified students but it is a hypothesis which commends itself to both of us.

In our opinion the Open University has placed too great a faith in the concept of counselling, hoping that a hazily defined activity can solve all the problems which beset the part-time adult student. So amounts of careful listening and prompting can improve a student's academic performance and the important fact needs to be recognized that a sizable minority of entrants are unable to cope with the university's academic material.

Among the Open University's senior counsellors opinion is divided as to the precise nature of counselling and what its future role should be within the OU system. In the meantime, counselling will remain all things to all men.

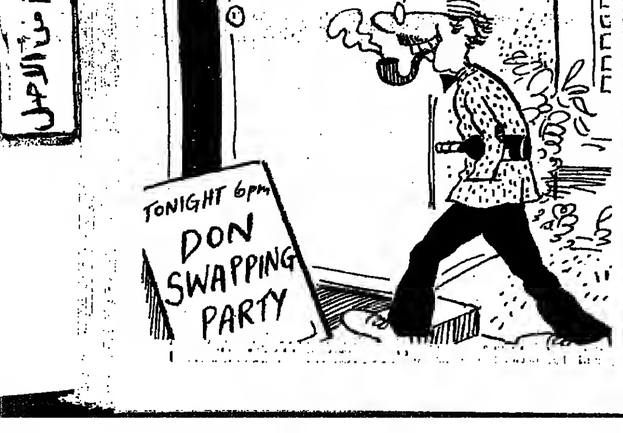
Henry Cowper
Colin Luckhurst

Thanks for applying, but we regret to inform . . .

'All this business of jobs, when all one really wants is to move.' John Daniel has a new idea

About this time last year I applied for a senior post at a polytechnic. The successful candidate was supposed to start last January. I waited, heard nothing and assumed the post had been filled. Then, in January I was informed I had been short-listed and would I like to attend the polytechnic for a day before the interviews so that I could see how the place worked? I did.

Later that month I was interviewed, but not informed of the result. Their director phoned my director. After a month I wrote and asked for the result. No reply. I telephoned and said could I have my expenses anyway? Yes, they said, but none came. This month I received a letter informing me that so-and-so had got the job. I wrote again for my expenses, with some acerbity this time. My letter crossed with the cheque. The whole operation took almost a year and I ended up where I started.



One gets used to failure, but not to the sheer irrationality of the interviewing system, nor to being marked about for ten months. Apart from the wear and tear on one's nerves in an interview, there is the chore of writing the application form, of dredging up the well-worn curriculum vitae, the contacting of referees, the expense of attending the institution to look around, the strain of waiting for the result (which in this case took four months to arrive) and the inevitable indension in one's plans while all this is pending.

If course, it is a buyer's market but the almost successful are subjected to greater strains than the immediately rejected, and the fact that I was in the last two or three out of 150 candidates did little to mitigate my sense of humiliation at failing to get the post by at the way I was treated. I found myself envying my father who used to find a new job by walking through Acton and looking at the noticeboards outside the factories in see if they wanted a toolmaker or not. What it is to be middle class.

But not all middle-class institutions function in this fashion. Journalists don't, designers don't, industry and commerce generally appear in a less cumbersome way. Even the Civil Service is faster than higher education.

What makes it all so absurd is that one doesn't really know what one is applying for anyway and that most of the interview questions can only be answered with an optimistic ignorance which you hope will convince the panel they are getting the right man. On their side, they are faced with an instant appraisal of the candidate which may finally devolve on such trivia as whether he or she twiddles their thumbs or sits with their legs crossed. An experienced fortune-teller might do better. The interviewers are even more in the dark than the interviewed.

It was while staring in my local newsagents at the postcards advertising second-hand carycots and convector heaters that a possible solution occurred to me. Among the postcards was one offering to exchange a council house in Essex for a similar model in Devon. Why not a job-exchange?

After all, if one is good enough to be an L2 or SL or PL in one institution, one should be good enough to do the same job in a similar institution. A briefing-session would be necessary, but there couldn't be anything too complex for the summer-vacation not to afford the time to master.

The advantages, particularly in this decade of lean-jammed departments are obvious. New blood may be a hackneyed phrase but it is accurate enough. After five or six years in one place, any individual finds he has run low on initiative and new ideas. His web of relationships has stiffened into the naturally possible and the totally impossible. He gives up in areas where he knows he has something to offer if different personalities were involved. He doesn't bother to carry on research because he knows his lecture-notes are already more than adequate for the kind of course he has set up. He plays safe, trapped in a circle of his own making which gradually moves from comfort through security to deadness.

In a new institution he suddenly wakes up, makes small adjustments and begins to live again. The incoming lecturer can also act as a catalyst in a failed department. He is listened to with more attention, since everyone knows what all the old lags are going to say anyway. His very ignorance of the structure and personalities involved is his strength.

Of course many universities and some polytechnics are already engaged in exchange-schemes of various kinds. But these are often transatlantic or involve research-projects and sabbaticals to fellowships-boards. Exchange within this country, particularly inside the polytechnic structure where graded posts are immediately identifiable would seem to be a simple and straightforward means, especially if NATFHE backed it and encouraged lecturers to advertise and negotiate on an individual basis.

Here one sees difficulties from the administrators. Dr Swan-song is needed for a CNAA submissing next year; the students will suffer from lack of continuity; Mr X's special skills are absolutely essential for this course. These would be the rationalizations for the loss of power felt by the bureaucracy. A polytechnic takes great care in its interviewing techniques. It has carefully hand-picked its staff. But the circularity of this argument is obvious and the rapid turnover in times of growth and full employment, as in the late 1960s, makes it dubious anyway.

Most people are where they are at the moment because they are stuck there. The increasing number of cases in *The THES* each week which show dissatisfaction and bitterness with departments is not a coincidence.

If there were excessive numbers who wished to transfer for a year, a quota could be fixed within each institution, faculty or department. There would obviously be difficulties over honours, children's schooling and so on, but all of these exist in any exchange scheme and no one who considered them too great need apply anyway.

An easy way to allow of lecturers from one polytechnic to another would be to pay and pool the single institution but the whole system. At present we operate largely in closed cells, with very little idea of what happens in other places. The effect of one year exchanges or of longer transfers of a semi-permanent or permanent nature would be to weld the whole polytechnic structure in this country into a more unified whole, sharing the best ideas and creating more open channels of communication.

I do not believe most lecturers apply for jobs because they are bursting to join the institution they apply to. There are the lures of money and status, of course, but the ladder is a short one and differentials are rapidly decreasing. I think many applications are made because the result is stronger than the pull. People feel stale and trapped in parts which have become too well worn. And as is well known, across-the-board applications at the same level or below theoretically post are generally viewed with suspicion. Why does he want to come here when it is not a step up?

Unthinkable that he should accept less money. Yet money may not be always the chief incentive for lecturers and NATFHE might find as much or more support for an exchange-transfer scheme than for his 9 per cent, at least more genuine enthusiasm. The possibility of another *donr opening* would go a long way towards solving staff feelings of frustration and would perhaps add a little leaure to the faded CV. To have spent some time at two or three other polytechnics is to have extended one's horizons considerably.

We could learn from the council house tenants. And just think. No interviews.

The author is a principal lecturer in the humanities department at Plymouth Polytechnic.

BOOKS

The phenomenon of the American artist

Yearbook of English Studies, volume VIII: American Literature special number
edited by G. K. Hunter and C. J. Rawson
Modern Humanities Research Association, £1.00
ISBN 0 900547 50 2

"Get out" was Harold Stearns's terse advice to would-be American writers, after considering *Civilization in the United States* (1922) and deciding that there was not any to speak of—or rather, to write of. For since then, the tendency, in different modes and guises, has been to "get back". Since the great defections of such figures as Henry James and Hemingway, there has been an increasing amount of reassessment, reappraisal, appropriation of American literature and culture, and its achievements and problems now attract some of the keenest intelligences on both sides of the Atlantic.

This present volume, which consists mainly of 13 essays on American literature contributed by a roughly equal number of American and British critics, reveals the high level of sophistication and critical sympathy with which critical writing now returns to American literature, its contours as well as its discontents. Laurence Holland sets the tone by suggesting that "the American imagination is fascinated precisely by those transactions in the continuum of history and fiction where authority and power are brought into close and therefore mysterious proximity, into interactive and therefore creative, though problematic, conjunction." Quoting Emerson on "power" and then noting Hawthorne's very ambivalent attitude to fictional fabrications, Holland notes that "Hawthorne recognized far more clearly than Emerson did the hazards and *ramifications of* constructive undertakings in art."

Mostly noting the emphasis Melville placed on "stammering", Holland goes on, "stammerings, impediments, are features not only of the artist's mediating instruments but of the prevailing imagination that authors them and whose complicity in their actions is inescapable." In a different vein, Larzer Ziff addresses the "Problems of a Democratic Literature" and shows how a lot of Hawthorne's sense of ambiguity (and that of a number of other American writers) "stems from the conflict between the artistic realization of individual character and the intellectual assertion of democratic human solidarity at all costs."

Must the artist be an individual pitting his singular sensitivity against the heartless, mindless mass? The evidence in Melville, Hawthorne and others, suggests Ziff offers little support for this view. "They sought to hear the inarticulate voice of the plural as well as the finely tuned voice of the singular." The problem is there of course, pre-eminently in Whitman, with his unreconciled double emphasis on the "centrifugal isolation" of the individual and the *"en masse*, and Ziff astutely notes an example of this split in the double role of Ishmael, who as character yields to Ahab (and loses becomes one of the anonymous mass), but who as teller or narrator encompasses not only Ahab but all the tensions and discourses in the book and thus contains them without being absorbed into them. Ziff finds a most appropriate quotation in Emerson's journals which can serve as an outline of the new kind of democratic hero:

He whose sympathy goes lowest dread him O Kings! I say to you, dread him. See you a man who can find pleasures everywhere, in a camp, in a barn, in a schoolhouse, in a stage coach, in a bar-room so that he needs no philosophy; but who drops into heaven wherever he goes, because of the great range of his affinities . . .

Such, indeed, has been the new kind of democratic artist who has been generated by the unique conditions of America, and the unique problems of "democracy" in a society always threatening to degenerate into mob-cracy.

Problems of art and democracy turn up again in a sensitive essay by Stephen Tapscott on William Carlos Williams's *Paterson*. In Williams's case, being a doctor provided a crucial mediating position, in and out of the game, but not only watching and wondering at it, but digging into its wounds and trying to cure them (as in the encounter with *Beautiful Thing*). So the old problem of the One and the Many takes on a specific American form.

In a political mode, this tension between unity and diversity is the tension, in a democracy, between the group and its constituent individuals. In a narrative mode, the same tension results in Paterson's shifting between his "medical" perspective of objectivity and his "humanistic" perspective as an individual.

In such a phenomenon as the "American artist" a contradiction is terms? Manifestly not. Yet what complaints American artists have made, and what they have to compete with (from paucity of materials, to unresponsive, philistine, even hostile audiences)! Malcolm Bradbury offers a wide-ranging essay on the importance of expatriation in American writing, taking up Harry Levin's observation that much American fiction has been written in foreign parts, and noting Solomon Fishman's point that "the perfectly national work does not exist". So Europe was subjected to "mythical reinvention" by Americans, and, as Bradbury shows, was both naturalized and dehistoricized. His main argument, not a new one from Bradbury I think, is that "American writers were, in effect, expatriates to expatriation", and became key figures in the founding of modernism because of their peculiar cultural condition of displacement or—perhaps—non-placement. The result was internationalization. The argument is persuasive, though it invites detailed challenges to its broad thesis.

One particular, and unique, cultural condition for America was of course the South, and Harold Beaver (who has done such excellent work on Melville and Poe) leaves his essay on taking the highly contentious and vulnerable book by Fiedel and Engerman called *Time on the Cross*, revealing its ostensibilities, and going on to consider the role of the black in American literature, reconsidering passages in writers as far apart as Crèvecœur and Baldwin, and reaudmating our sense of the significance of books as varied as *Uncle Tom's Cabin* and *Moby Dick*. He even, rightly, brings in the powerful—indeed horrifying—and little-known work by Stephen Crane, *The Monster*. His conclusion?

What Richard Wright began Malcolm X and Imamu Baraka completed. The resurrection of the messianic motif by white historians, therefore, is not only blind, but a perverse misunderstanding of the deep, in a long centuries-old tradition. In the lumber room of our minds such black archetypes may well still posthumously linger. As symbols for the creation of politics or literature, they were always dubious and by now at least should have been grasped and truncated and diminished out of existence. Right.

Walt Whitman photographed in 1877 and Ezra Pound (right) in 1958 on his return to Italy.

The famous, endlessly ambiguous, story about the American artist is Hawthorne's *Artist of the Beautiful*, and Dennis Welland offers a fascinating and scholarly essay on just what kind of an artist Owen Warland, the protagonist is, and what the status is of his ambiguous product, the mechanical butterfly. The butterfly is both "useless" and an "imitation", so what criteria of art can it satisfy? His inquiry takes him into the whole history of interest in mechanical reproductions of living things — Regio Montanus, Sir Thomas Browne, Edward Taylor, on to William Dean Howells. He concludes with some speculations about the American fascination with automata, and suggests, nicely enough, that Owen Warland's natural successor was Walt Disney.

It is perhaps invidious to pass over a number of admirable essays in a cursory way, but the constraints of a short review enforce such unwelcome discourtesies. Arnold Goldman has an excellent piece on "Faulkner's Images of the Past" in which he deals with the effect of remembering, and disremembering, the Civil War, on the Southern whites. Such comments as the following, on *Absalom, Absalom!*, seem to me to be provocative in the most fruitful way: "The novel, in the drama of its uncovering and discovery, becomes a desperate contest between the stasis of trauma and the potentially therapeutic effect of speaking the unspeakable." (He refers pertinently to Freud's visit to America in 1909.)

Donald Munk, drawing on Lorenz and Ardrey, discusses the kind of territorial imperatives at work in Hemingway, and shows how his characters tend to live between "flight distance" and "critical distance". Of *The Sun Also Rises*, he writes: "The fineness of the novel depends on its presentation of special feelings towards territory, in the fact that the territory is only precariously occupied, and in the way we are asked to share the anxiety and on the arrogance of the occupiers"; and he concludes with the challenging contention that Hemingway, at his best, is "an analyst of vulnerability". A good point to end with, and a good question to begin with, in any discussion of literature.

"In life and speech, with many false voices, unceasingly, if we are lucky, we find a true one in our poems." Thus Robert Lowell, and Christopher Butler offers a generous—to me somewhat over-generous—account of the finding of such a voice in the period from *Notebook* to *The Dolphin*. Way over yonder, James Breslin takes a rather cool-eyed look at Muller's *Armies of the Night*, and finds "obsessional repetition", "the postulings of a single individual"; Muller's conception of "politics-as-therapy" along with a lot of his unexplored fantasies; his dubious emphasis on self-justifying "style"—a cumbersome, self-protective, self-inflating style, which "counts his own grandiose self-conceptions"; and Breslin concludes, disengagingly yet convincingly enough, the "Muller does not acknowledge the reality of styles different from his own, any style but his own. . . . His prose, far from contesting totalitarianism', provides yet another instance of it". Any supporter of Muller, including Muller (one supposes), will have to answer the intelligent and well-documented case made by this essay.

I must confess that there are certain contemporary American poets about whom I find it difficult to speak—inherited and acquired vocabularies just do not seem to fit. In this connexion I found Marjorie Perloff's essay on John Ashbery and Frank O'Hara very helpful. She has certainly done her homework—by which, I suppose, I mean her research—and the result, for me, is a very enlightening piece on the intentions and achievements of these two poets. I can see that "an aesthetic of presence . . . replaces one of transcendence", and that both poets wanted to replace an "event" by a "way of happening". I have also noted, as anyone else would, that Ashbery "subverts signification as fully as possible". And if Kenneth Koch finds "inspired irrelevance" in O'Hara, one can scarcely argue the point. But Marjorie Perloff goes much deeper, not only into the debt to Surrealism both poets owe, but also into the poems themselves, offering analyses of, for example, O'Hara's *All that Gas* and Ashberry's *They Dream Only of America*. A fine essay which I hope is a prelude to a book which anyone interested in contemporary American poetry will be grateful to have.

I have left Stephen Fender's essay until last because it seems to me to be not only engagingly modest, but very important for students—or any readers of American long poems. He tackles head-on the very real problem of allusions in the works of Whitman, Crane, Pound, and Williams. Working on these poems he found "a major difference between the poets' patterns of reference".

To be brief (whose Fender is much more economically suggestive) Whitman and Crane worked from obvious schoolroom texts of American history—an open field of "simplified tales of individual enterprise, glamorous exploration, discovery, and invention". Pound and Williams however work from a hidden field of reference. "The American history of Pound and Williams . . . is precisely not that found in the contemporary educational system." Fender calls their approach to American history "hermeneutic". He demonstrates just what texts Pound drew on for the American history cantos in *Jefferson*, and then goes on to reveal the local history which Williams drew on for *Paterson* (*A History of the City of Paterson and the Country of Passaic*). "All good poems have to be worked at" asserts Fender, and he shows that "the words-on-the-page critical approach fails in this instance because the documents are indispensable, not only in an understanding but also in a reading of the *Jefferson* Cantos. The poems quite simply cannot be construed without them. In fact, they are not just sources but parts of the poem". So he confronts the problem quite directly, in a valuable post new-critical way. We have to go back behind and beyond the "words on the page" if we are to appreciate what the poet is doing: to the reader is left to do the work, to spend his time, energy and money researching our documents . . . using indexes where provided, reading collateral works of history . . . all this in a gain in force in the poems themselves. That is the experience of the *Jefferson* Cantos: the whole (sometimes sensual process of assembling the poems, through time, from their scattered bones". What he shows very clearly is that American poets have used history in at least two quite different ways. And because I think the point is an important one I, as it were, hand over the review to Stephen Fender.

American poets addressing themselves to their history have had to adopt one of two models which, for the sake of argument, we might call "comforting" and "subversive". The comforting model restricts its allusion to what the author knows his audience must share; the common denominator of information disseminated by, say, folk wisdom, the popular press, and free public education. This is the method of Whitman and Crane . . . Pound and Williams are altogether more unsettling. They make no immediate appeal to shared knowledge, much less to prejudice. In fact, their citations of documents are not allusions at all. The reader is not expected to have anticipated their colleted set; he is "ignorant" only in that he has yet to follow their course. Pound and Williams set out to educate us.

This, perhaps, has been one of the solutions to the problem of being a democratic writer in America—the artist as teacher, transforming the reader from a passive consumer into a fellow hermeneutical labourer, inviting him to participate in the adventurous and reconstructive work posed by the text (this would be as true of Melville and James, for example, as it is of Pynchon and Pound).

That such work can become arcane, exclusive, elitist is of course a very real risk—as the sad fate of Ezra Pound is another.

Tony Tanner

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BOOKS

Breaking the genetic code

A Century of DNA : a history of the discovery of the structure and function of the genetic substance
by Franklin T. Portugal and Jack S. Cohen
MIT Press, £12.25
ISBN 0 262 16067 6

Twenty-five years ago Watson and Crick elucidated the 3-dimensional structure of deoxyribonucleic acid (DNA) and so for the first time provided the basis for a completely convincing solution, at a chemical level, of how living organisms copy themselves (that is, *reproduce*) and of how their various heritable characters are determined. This has widely been accepted as the most important discovery in biology over the last 100 years, if not for all time. The history of how it came about is of immense interest.

In this book, the story begins in 1869 with Friedrich Miescher's isolation and partial characterization of a new type of compound from the nuclei of cells, which he called "nuclein" and which consisted largely of DNA. But after the initial excitement, relatively little general interest was maintained over the following 70 years or so. It was not until Avery and his colleagues in 1944 showed that the factor responsible for the transformation of one type of pneumococcal bacterium genetically into another type was a phenomenon discovered, but not understood, by Griffith in 1928 was in fact DNA, that the vital importance of the "master molecule" began to be properly recognized. Until then, proteins held sway as the key type of biological molecule responsible for the origin of all specificities. From then on, despite plentiful scepticism, events moved fast until 1953 when Watson and Crick's paper was published. And ever since, work has proceeded rapidly to exploit that discovery. To begin with, this was largely a sort of mopping-up operation concentrating on the solution of "the code": the principle by which the unique sequences of nucleotides in the various types of long DNA "tape" are translated, via the complementary sequences in "messenger" ribonucleic acids (RNA), into the sequences of amino-acids in the proteins which themselves directly determine the specific characters possessed by different living organisms.

This is a particularly critical time for an historical analysis because the basic discoveries took place sufficiently long ago to allow a reasonably objective approach, yet at the same time recently enough for many of those directly involved still to be alive and approachable in person. It is not therefore surprising that over the past few years, there have been quite a number of books and articles on the subject. Portugal and Cohen's is unlikely to be the last, but it is probably so far the most comprehensive and they have exploited their opportunities vigorously by consulting unpublished archives and a vast number of original reports as well as conducting personal interviews and private correspondence with many of the surviving protagonists. This makes fascinating reading and is immensely valuable as a record of the subjective impressions of the scientists concerned, though it would be prudent to retain some scepticism about what really happened. It is a good general rule to suppose that if a scientist has an idea or does an experiment which he believes is important, he will write it up; what he thinks he thought is subject to the tricks of an emotionally biased memory and what he *said* is better recorded by others or at least requires their corroboration. What he writes retrospectively should be treated with respect, but also with reserve.

The authors hope that their book will be comprehensible to the general reader, but it will be hard going in parts for those without a fair training in basic biology. Most biologists, however, must surely find it of the greatest interest, especially because the fundamental background behind the wide range of experimental techniques used has been pretty thoroughly expounded. And it is good value, even at £12.25; the area covered is large. There are over 1,000 references, numerous entertaining anecdotes and some excellent photographic portraits, pictures of famous laboratories and other illustrations.

Particularly good sections are those dealing with the last few months before the 1953 "epiphany", which include a convincing fair account of the supposed Wilkins/Franklin confrontation over the latter's X-ray pictures of DNA, in which both "conceptions" emerge as being much more humanly recognizable (especially Maurice Wilkins) than is sometimes implied. They give a more detailed report than has hitherto been available of the chemical analyses first made by Miescher himself and the following fundamental work by Kossel and later by Levene between 1880 and 1930, which laid the basis for the 2-dimensional general structure of nucleic acids. However, the standard of presentation is high throughout.

On the other hand, the balance of emphasis and the implications of what were the main pathways of profitable exploration do seem sometimes to be awry. For instance, J. B. S. Haldane's contribution to the biochemistry of genetics is ignored, and whereas Nirenberg's work in elucidating the "code" (which turned out to be a triplet of nucleotides in specific sequence for each amino-acid in a protein) is dealt with in detail, the famous earlier paper by Crick, Brenner and others demonstrating that the "code" must involve a triplet or a multiple of three—one of the most intellectually beautiful pieces of work in the whole of molecular biology—is barely mentioned. Also, while Pauling's failure to get the right solution for DNA structure might reasonably be almost considered bad luck though Pauling himself modestly denies that he would have eventually "got there" had Watson and Crick's paper never been published, the same argument cannot be applied, as this book maintains, to Gale's 1955 work on the apparent stimulating effect of certain nucleotides on aspartic acid incorporation into bacteria in relation to the coding problem (which everyone was fiddling with at the time) because he was not on a track that could possibly be leading to the final solution that was eventually achieved by Nirenberg over 10 years later.

It is also often difficult to find one's way through the maze which is compounded of vital hints, trivia and mis-leading leads along a pathway so exciting as this one. But this is of course is one of the fascinating aspects of real science history and part of the challenge facing any student of the subject.

These are instances of what perhaps are relatively minor points. A more important limitation is the apparently firm resolve to restrict coverage to the century between 1869 and 1969. This seems to be rather artificial. Even a brief consideration of the evolution of concepts in biological development and the mechanism of heredity during the 100 years before Miescher (back to Buffon, at least) would have illuminated the background to the *Century of DNA* very profitably. To have totally discarded consideration of the exciting discoveries after 1969 on "regulatory DNA" is disappointing.

There is such a lot in this book that one wishes, rather unfairly, for more. Indeed, within the relatively small compass of around 120,000 words, the authors have really tried to squeeze in too much. The result is that at times their account appears congested, with uneven emphasis, and somewhat jerky and stilted in style, occasionally amounting almost to a list of references, like the *Annual Review* series. One longs for a broader element of overall analysis and some attempt to view the whole picture in its general context of the development of biology over the past 300 years. It would have been good to savour more of the emotional thrills, perplexities, paradoxes and frustrations attending the evolution of the whole tremendous story. Most of us who lived through this fabulous period, if we did nothing else, still feel privileged that at least "we were there". However, this is probably asking far too much and is intended as much as a compliment as a criticism. Perhaps the authors will consider the possibility of one day producing a real *magnum opus* in three or four volumes, of which this book, suitably brought into better focus, would simply be an abridged edition. They must certainly have a vast amount of unused material available. It would be a good opportunity for exploring the range of lessons to be learnt (if, indeed, such generalizations can be made) and the philosophical and historical principles in any interpretation of this gigantic human achievement.

The end of the story has not yet been reached. Perhaps literature and all just a question of DNA. But there is certainly enough potential information available in DNA, by ringing the changes in nucleotide sequences, to provide an almost infinite variety of different characters in an almost infinite variety of different organisms. An instructional, self-copying language has evolved the same for every type of living creature and there appears to be no limit to the extent to which in principle it could be exploited. We can already read, in meaningful terms, a fair proportion of the messages used, but a great deal still needs deciphering.

There is plenty of excitement and no doubt many surprises waiting in the years ahead.

Martin Pollock

Ups and downs

Introductory Graph Theory
by G. Andrásfai
Adam Hilger, £8.00
ISBN 0 85274 249 5

Yet another introductory text on graph theory? In view of the proliferation of such texts in the last few years such a reaction is understandable, but a quick glance is enough for one to realize that this book is completely different in style from most of its competitors.

It is unashamedly a problem-based book, in which the author treats the theoretical material by analysing problems, rather than by using the conventional "definition-theorem-proof" approach to be found in most textbooks. For example, the chapter on trees works by asking the reader to draw connected graphs with up to ten vertices, guess how many n−1 edges and then to draw all those which have no circuits; the reader is then observes that the answers to the two problems are identical without understood these two characteristics of trees more effectively than if they had simply been presented as a formal theorem. The formal material appears, of course, but only after the reader has been prepared for it by suitably-chosen problems.

The result of all this is an attractively-written book whose central theme is made accessible to a wide readership, whether interested primarily in the theory of the subject or in its many applications. From this point of view it can be highly recommended. However, it has certain disadvantages. For a start, the result of writing the book in this way is that particular results are difficult to find. I spent some time trying to locate a particular result on bipartite graphs (both sides being infinite) from the index, but eventually found it hidden in the middle of a long text.

Although the book is entitled *Introductory Graph Theory*, there is no mention of such topics as planarity, colouring, matrices, network flows. These topics could be included in a forthcoming second volume, presumably at a higher price, resulting in one of the most expensive introductions to the subject on the market. Publisher wishes to make this excellent book competitive, he should consider publishing the two volumes together as a paperback. If he does then it is unlikely to reach the audience it undoubtedly deserves.

Robin J. Wilson

BOOKS

European decisions

The European Parliament
by John Fitzmaurice
Saxon House, £8.00
ISBN 0 566 00168 3

According to his introduction, Fitzmaurice intends addressing himself to the questions: can direct elections give the European Parliament a new impetus, a new authority and a new influence? Can an elected European Parliament (EEP) play its part in developing the European Community?

However, only partial and somewhat unsatisfactory answers are provided.

Chapter one sketches the role of the EP in EC decision-making. He sees its task as primarily that of "providing a democratic input into the Community decision-making process", arguing that it is accountable to the wider public. Yet the latter can not be demonstrated. Indeed, supranational accountability in the wider public will only come when the EP is directly elected: when EC citizens have the power to vote unsatisfactory Members of the European Parliament (MEPs) out of office.

The EP's "publicity weapon" is exercised by Fitzmaurice. Media coverage of the EP centres on the Commission and Council of Ministers, and only rarely on the EP. In Britain, it is only *The Times* that covers its work regularly and in depth.

Although his coverage of the EP's powers is too scant, the section dealing with its committees, and procedures is clear and informative.

Chapter two deals with national parliaments' roles in EC decision-making on a country-by-country basis. The basic description of the powers of special scrutiny and normal parliamentary committees is useful but Fitzmaurice tends to accept too uncritically the view that the EP is not really interested in links with national parliaments because it sees itself as "pro-federal" and regards increased links with national parliaments as a hindrance to its "institutionally aggressive". Just what is meant by this is not explained. Moreover, there is likely to be a need for links between national parliaments and the EP if only because there can be no guarantee that their interests will never overlap or that MPs and MEPs may not benefit from exchanging information. To institutionalize non-communication between the two sets of parliaments even before the EP's direct election would be counterproductive.

Chapter three usefully describes the development of the decision to hold direct elections and surveys government and opposition attitudes to them in the Nine.

Chapter four speculates on likely party alliances for contesting the elections, looks at supranational groupings, and predicts a majority for the "combined Left". The treatment of MEPs' accountability is another insubstantial. Fitzmaurice assumes their accountability to national parties but the real problem of accountability lies elsewhere: namely with the EC's real legislature—the Council of Ministers.

Concluding with remarks on the Spain transition, Fitzmaurice outlines elements of the Veder and Tindemans reports, and then reverts to commenting on the EP's powers. Much of this, and some of Chapter three, is repetitive and could hence be condensed in one chapter. Fitzmaurice is best when describing the rules, procedures and committees. The book generally lacks analytical depth and a bibliography is unfortunately omitted.

Juliet Lodge

In response to the archival revolution which has taken place since the Second World War, Michael Dowson has written *Archives Administration: a manual for intermediate and smaller organizations* and *for* Mrs Dawson at £10. The book aims to provide basic information for anyone starting or running a small or intermediate archives or records office. It sets out to give basic information only, and the bibliography should be used as a guide to further reading.

Man of his time

Adam Smith's Politics : an essay in historiographic revision
by Donald Winch
Cambridge University Press, £10.50 and £3.50
ISBN 0 521 21827 6 and 29288 3

Adam Smith : lectures on jurisprudence
edited by R. L. Meek, D. D. Raphael and P. G. Stein
Clarendon Press : Oxford University Press, £20.00
ISBN 0 19 828188 9

The crudity and lack of decent professional standards in the history of ideas is nowhere better illustrated than by the distorted misreadings of the work of Adam Smith that are still being produced. Whether Donald Winch's essay will have any effect on those responsible, especially economists (even academic ones), politicians and journalists is to be doubted. Most of them simply do not have the knowledge, or patience with the acquisition of the necessary knowledge, to begin to appreciate what he has done so well. Indeed although this is an extremely intelligent, clear and readable introduction to Smith's politics, probably only those who know the subject very well will fully appreciate the amount of thought and reading and analysis of texts that has gone into it.

By looking at Smith in the light of his contemporaries and their concerns, especially Hume, Winch has been able to strip away the blackened varnish and reveal the detail and nuances of the original. Not that we are given the whole picture, and Winch knows this perfectly well. The crucially important ethical dimension is there, certainly, but it is not central, and as a result the attentive reader of the *Theory of Moral Sentiments* may feel the very occasional odd draught blowing in from a cold outside. The enemy could have been still more thoroughly routed if the Hutcheson axis had been followed up, for instance with respect to their theories of natural justice, but to do that properly would have unbalanced the essay. As it is, his title is wholly apt; the book is precisely what it is said to be and as such it is refreshingly original.

The historiographic revision concerns the hitherto dominant perspective of liberal capitalism and its enemies. All economists, all Marxists, and many others, however sophisticated and intensive their work, still tend to look at Smith as a nineteenth-century phenomenon, not an eighteenth-century one. But Smith is not a laisser-faire dogmatist; he is not an economic determinist; the legislator still has an important role, in spite of Mandeville's scepticism. Smith was operating politically on a platform, a very complex one, that simply dropped out of sight in the nineteenth century. Winch has been able to make use of the comparatively recent work of scholars who have shown that Locke is vastly less important in the British and American political scene of the eighteenth century than was once thought. And he shows that if one gets the background better focused, then a political Adam Smith comes into sight to confound those who equate him with the metamorphosis of politics into economics. And in the final analysis what emerges is a hygienic, detached, clinical attitude that is nevertheless wholly committed. That this may be too much for our weaker stomachs is suggested by Winch's description of Smith as "infuriatingly balanced", though maybe what was uppermost in his mind in that remark was the task of the interpreter, and this all serious interpreters of Hume and Smith will understand.

One of the great difficulties in studying Smith's political theory has always been the lack of reliable evidence. That is why the discovery and publication at the end of the last century of a set of student's notes of his Glasgow lectures on jurisprudence was an event of such importance. In 1958 another, fuller set was found. Both are now published, and all students of Smith are Professor Meek, especially, a considerable debt for the sorting and dating of the new set. Those of us who have been waiting to see the closely-guarded manuscript for 20 years with mounting impatience will now be able to get to work. How Donald Winch managed to get permission to use it is his secret. At any rate it is one more example of the thorough knowledge of what is going on in academic circles that informs his book.

Duncan Forbes

Aspects of Weber

Max Weber : selections in translation
edited by W. G. Runciman and translated by Eric Matthews
Cambridge University Press, £12.50 and £3.95
ISBN 0 521 21757 1 and 29268 9

Sociology or pecsem has, to echo a phrase of Richard Nixon's, a public relations problem. It has so far survived the attempt in *The History Man* to laugh it out of academe, but once recently, in the letters page of *The Times*, it has been compared to the neutron bomb for its ability to bore people to death without otherwise inflicting much physical damage. I suppose the complaints stem from sociologists spending an amount of time and effort studying sociology—its nature, epistemological basis, and what other sociologists have said about it—wholly disproportionate to the attention they pay in society. A state of seemingly permanent intellectual crisis in a discipline no doubt makes it inward-looking.

The selection of Max Weber's writings prompts the thought that, even if the intellectual crisis were inevitable, the public relations problem might never have arisen had sociology been plentifully supplied with geniuses of Weber's vast learning. The range of his interests is extremely well demonstrated in the contents of this book. Of course, he made contributions of lasting influence on methodological issues—social action, ideal-types, value-freedom and all that. But what in the end gives his views on method such authority is his application of them in empirical work which spills across conventional disciplinary boundaries from theology and law to economics, politics, psychology and music. Such is the scope of his work that Weber for long resisted the narrow label of sociologist.

Runciman and Matthews have divided their selections into six sections: foundations of social theory; methodology; ideology; politics; economic and social history; and miscellaneous topics. They include several famous passages, some less familiar discussions of familiar problems, and a number of extracts from the relatively little known parts of his work. Among the familiar passages may be mentioned his discussions of value-judgements, social action, categories of social organization, protestantism and capitalism, the religions of Asia, the medieval city, bureaucracy and law, charismatic domination, and "classes, status-groups and parties". Among the less familiar pieces is a discussion of the concept of "following a rule", topical in view of the recent influence of Wittgensteinians in sociology. Another is Weber's 1918 lecture to the Austrian army on socialism; perhaps it is only with hindsight that Weber's foresight in linking socialism and bureaucracy does not seem more remarkable. A perspicacious article on "The prospects for liberal democracy in Tsarist Russia" represents Weber the occasional political journalist—though he apparently learnt Russian in order to examine this subject, marginal as it was to his main interests.

Possibly most fascinating, however, is the final section of short miscellaneous pieces. Here are discussions of race relations and industrial psychology, both remarkable anticipations of contemporary concerns. Here also is a paper on the stock exchange, exhibiting Weber's mastery of the technicalities as well as his unabashed advocacy of German national interest (it should be made illegal for German newspapers to publish details of stocks of which the government disapproved). On Freudianism, Weber writes, "there is no doubt that Freud's line of thought could because very important in suggesting interpretations for a whole series of cultural phenomena, especially in the area of religion and morality; admittedly, when seen from the lofty vantage point of the cultural historian, this importance is very far from being as universal as is assumed, in their very understandable enthusiasm and joy in discovery, by Freud and his followers". Squelch. And the history of the piano: the interaction of the technical and social in the triumph of the hammer plano with of the Alps.

Reading or re-reading these selections, one cannot help feeling that even where Weber's conclusions have been superseded by modern scholarship (as it seems they have for example on China), this at any rate is what sociology ought to be about. Matthews's translations read extremely well. This book should immediately supplant the well-loved Gerth and Mills as the standard student reference on Weber, and will be very handy for teachers too.

Stephen Mennell

New particle physics

Nuclei and Particles : an introduction to nuclear and subnuclear physics (second edition)
by Emilio Segrè
W. A. Benjamin, £22.15
ISBN 0 8053 8601 7

This new edition of *Nuclei and Particles* represents a substantial revision of the first (1964). The division of that original version into three parts dealing with the practical hardware of nuclear physics, the physics of the nucleus, and elementary particles, is retained. So is its purpose, which is "to convey ... a general, but not superficial, view of the subject."

During the past 15 years there has been a vast increase in knowledge in elementary particle physics. A new generation of particle accelerators has come into operation with a consequent accumulation of new data and discovery of new phenomena, while theoretical understanding, based on notions such as quarks and gauge theories, has emerged from the doldrums of the early 1960s.

The timing of the appearance of the first edition of Segrè's book was in a sense unfortunate. Gell-Mann and Ne'eman's classification scheme for elementary particles, known as SU(3) or unitary symmetry, had just received its first boost with the experimental discovery of the theoretically predicted omega minus particle, but the idea of quarks as in some sense more "fundamental" entities underlying the SU(3) family structure of the known particles emerged only after the book had been put into production. It is perhaps not surprising then that the biggest changes in Segrè's book are reserved for the third section, on particle physics.

While the first two parts have been revised largely by the device of adding relatively brief updating paragraphs or sections at the ends of chapters, the final section has been entirely reorganized and now introduces the reader, albeit briefly, to topics such as quarks, charm, neutral currents, unified theories of weak and electromagnetic interactions, the discovery of the J/ψ particle and its relatives, and the physics of very high energy collisions.

Overall this new edition succeeds admirably in its aim of providing a text which is not a research monograph but which does give the prepared reader a good idea of what the vast field of nuclear and particle physics is all about. It is even more lavishly endowed with figures and photographs than was its predecessor and the use of a different typeface makes the volume visually very attractive. As in the first edition, there are extensive bibliographies at the end of each chapter, enabling the enthusiast to follow up his or her interests. There is much that is suitable for the advanced undergraduate but also a great deal that is more appropriate to the postgraduate student.

Unfortunately it seems likely that this volume will prove prohibitively expensive for use as a prescribed text for undergraduate courses and may be doomed to serve only as a reference work.

K. C. Bowler

Distribution of wealth

Poverty and Landlessness in Rural Asia
by Azizur Rahman Khan and others
International Labour Organization, £10.00 and £7.80
ISBN 0 92 2 1017672 and 1017664

More than half of the world's urban dwellers live in a town or city in the Third World, and most of the fastest growing cities are located there. But as the urbanization process in the Third World causes growing concern, it is appropriate to be reminded by this book of the millions who are rural dwellers and involved in farming—not only in Asia but also in Africa and in Latin America. They focus acute problems of poverty and landlessness and it is to these that this book directs attention.

The volume results from the World Employment Programme initiated in 1969 by the International Labour Organization. Concerned as it is with the stark realities of life in rural areas where problems of overwhelming magnitude have to be faced, it is a sobering book. Inevitably it offers the optimism sometimes expressed about the fairer distribution of wealth throughout the world. The parts of Asia studied account for 70 per cent of the rural population of the non-socialist developing world; and relatively few of these rural dwellers, all agricultural producers, are able to enjoy the good life, and most of them exist very near to the poverty line.

The 10 case studies, all specially commissioned and undertaken by economists, in seven different countries (Pakistan, India, Bangladesh, Sri Lanka, West Malaysia, Indonesia and the Philippines) produce diverse results, and generalizations must therefore be avoided. But it is clear that even where there is sustained national economic growth, certain groups can continue to be very poor with incomes that in real terms remain stagnant or even fall. Beneficiaries—indeed we know so well in Britain—do not always "trickle down" to those most in need.

The opening chapter analyses the results and indicates the main trends and so anticipates the conclusion that any reader will reach—a sombre picture of a worsening distribution of income as well as a decline in the real income of the rural poor in these parts of Asia. All this emerges at a time when there might seem to be ground for optimism in the attack on world poverty. Food production is generally increasing; the "green-revolution" has had its effect, at least in certain countries. Population is of course increasing but, when viewed globally, it is possible to assume that given time and stability and provided food supplies continue to increase, all will be well. But will it? These studies show how the gap is still widening—not the familiar gap between the rich North and the poor South or the "haves" of the capitalist countries and the "have nots" of the Third World, but the equally worrying gap between the relatively small but very affluent elite of these countries and the still very poor who constitute the bulk of the population and everywhere.

The volume concludes with a look at what has happened elsewhere in Asia under very different ideological conditions. The section on "The Chinese Experience", written by Azizur Rahman Khan of the ILO headquarters staff (who is also the author of the Bangladesh and Philippines studies), grapples with the problems of variable and incomplete data. "It is not easy", he observes, "to make up one's mind about questions such as . . . 'how equal is distribution of income in China today?' and 'are there contrasting inequalities in a conscious Chinese society?'". I find myself in the same difficulty after reading the chapter carefully. There is no doubt that land reform and collectivization have very marked improved the distribution of rural income, but much inequality remains—based, the author suggests, on "rights and privileges which have rarely been challenged by human society at any time in history". "The community must cease to behave in accordance with the standard of assumption of economics and groups work as households and consumption" higher material consumption".

This book should be read not only by those concerned with poverty and landlessness in Asia but also by those with a wider interest (which surely all of us should have) in the achievements and the relevance to other societies of "the Chinese experience".

Robert W. Sleddon

Scottish Labour dissidents

Breakaway : the Scottish Labour Party
by H. M. Drucker
Edinburgh University Press, £1.95
ISBN 0 904919 20 X

At the end of 1975, under the heady impact of mounting Nationalist support in the polls, two Scottish Labour MPs—Jim Sillars of South Ayrshire and Jim Robertson of Paisley—seceded to form the Scottish Labour Party. Their immediate quarrel was the tardiness and inadequacy of Labour's devolution proposals, but they also emphasized their pro-Socialist: the SLP would provide the only satisfactory alternative to the Scottish National Party for left-wing Scots—the majority—whom they expected to leave British Labour in increasing numbers.

This book chronicles the history of the SLP during 1976, the year of its feeble emergence and explosive disintegration. Whether it was ever very effective is a moot point: in two local by-elections it seems to have diverted enough Labour support to let the SNP in—though perhaps through confusing in electors' minds over party labels rather than through its direct appeal. Normally this would have attracted little interest, but at a remarkable juncture in Scottish politics when movements of grass-roots opinion were turning the whole system over, such auguries were given enormous significance — magnified by the bizarre interest many Scottish political correspondents has in promoting the new party (themselves being founding members!).

Had disinterested observers had access to the facts revealed in Drucker's lucid account, they would have realized this was a momentary episode. The dissident MPs made no effort to "capture" their constituency parties or other strategic bodies: instead they relied on attracting individual members, who came in impressive numbers at first—some from the ranks of Labour and the uncommitted, but many from a variety of extreme Left groups. Quarrels between these and the leadership were inevitable at some point, but were positively stoked by Sillars and other leaders to the extent that they split the party after 10 months, destroying it as a credible force.

One may query, in view of its transitory nature, whether the SLP deserves the attention it gets in this book. The decline of the Independent Labour Party after 1931 sufficiently underlines the fate of Labour rebels once they cut themselves off from the main party. Two salutary points may nevertheless be drawn from SLP failure. The first is the considerable scepticism with which we should view much coverage of party and electoral politics, even from correspondents not so personally involved as here. Politicians and journalists alike tend to have short term political perspectives, to take the latest event as the most important, and to play on each other's heated imaginations, thus bolstering the unhealthy tendency whereby last night's TV news provides this morning's headlines, which dominate this evening's news. Such tendencies are particularly marked within the limited context of Scottish politics.

The momentum of political reporting (Scotland's major growth industry, apart from World Cup souvenirs) will no doubt carry over into a spate of stories on the decline of the SNP, now that its electoral progress is faltering. It would however be just as much wishful thinking to believe this as it was earlier to believe in the immediate triumph of the SLP. For the second lesson of Drucker's book is the need for time and organization in politics, both of which the SNP have in plenty. One can never realistically hope (at least in Britain) to change the political world overnight. Long and patient proselyting is required, together with enough confidence to nurture inevitable failures. Growth under these conditions forms a guarantee of permanency which the SLP never had, and which Jim Sillars never envisaged. The SNP leaders are a tougher breed who will survive with or without publicity: looking beyond day to day events, the question is not whether they will disappear but how they will re-emerge next time.

A detailed study of the SNP, on the lines of Drucker's book but more extended, would thus contribute much to our knowledge of Scottish and British politics. I hope that the present study is a curtain-raiser.

Ian Budge

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BOOKS

Armies of the shadows

Resistance in Vichy France: a study of ideas and motivation in the Southern Zone 1940-42
by H. R. Kedward
Oxford University Press, £8.50
ISBN 0 19 822529 6

In this admirable study of the emergence of the Resistance in the unoccupied zone of France 1940-42, Dr Kedward sets out to answer various questions. Why did a small number of people—and it was of course only a tiny minority of Frenchmen who actively resisted Vichy or the Germans—decide to swim against the tide? How were they organized? What were they aiming at?

He concludes that while no precise pattern emerges certain types of people were more likely to resist than others: mountdwellers, those with left-wing sympathies, refugees from the north (especially those from Alsace-Lorraine), intellectuals, journalists, Jews, Protestants, people who had supported the Republic in the Spanish Civil War or who had openly condemned the Munich Agreement, and nationalists whose militant anti-Germanism unweighed their instinctive interest in Pétainist order. Residents of all sorts—Emmanuel D'Astier's "anarchic of society"—were also likely recruits: communists who were prepared to condemn the party line when the Nazi-Soviet pact was in operation, left-wing Catholics who were critical of the orthodox conservatism of the Church hierarchy, eccentric soldier-adventurers like Lousteaunau-Lacau or renegade *Action Française* men like Christian Pineau.

The Resistance, then, developed in its early stages as a "diffused and inchoate phenomenon, heavily dependent on variables in personality, politics and place". But by 1942 the nature and effectiveness of what remained a very diverse movement can be analysed with a little more precision. The main networks were in existence by then: *Combat*, predominantly left-Catholic and Socialist, *Libération*, predominantly Socialist but with Catholic, conservative and political members, *France-Tireur*, predominantly Socialist, and *Front National*, almost exclusively Communist. But all four were heterogeneous in recruitment and political outlook, despite their unanimous and objective of defeating Fascism and creating a new though imperfectly defined France. The main clandestine newspapers were also in existence, playing their part in keeping up the morale of resisters and encouraging others to join them: *Combat*, which replaced the earlier *Liberté* and *Vérités*, *Le France-Tireur*, *Le Coq Enchaîné*, and others. Moreover, by 1942 the number of active and passive resisters had been greatly augmented, not only because the Soviet Union had been launched into the war and Britain was clearly not going to be defeated, but also because Vichy itself, by its attempted revolution nationale, *chantier* du travail and anti-semitism, provoked the opposition of republicans.

Libertarians, trade unionists and many others with a commitment to individual human rights or a strongly developed sense of French history and traditions. Even before the German occupation of the Southern zone in November 1942, and the introduction of forced labour in February, 1943, the foundation had been laid for an effective resistance movement.

Among the many fine qualities of this book I would pick out three. First, it analyses with particular skill the paradoxical question of the French Communist Party before the Nazi-Soviet Pact and the German invasion of Russia, showing why it was that so many Communists were "against the valet [Pétain], but not against his master [Hitler]" in this period. Kedward does not mince his words in exposure the PCF for its logical inconsistencies, but at the same time he explodes the old myth that the Communists en *bloc* were little more than the lackeys of Vichy and the Germans between August 1939 and June 1941. Secondly, Kedward discusses in depth the role of the Christian Democrats in the Resistance, men such as François de Menthon, Pierre-Henri Teitgen and the Frenay-Vinet brothers.

Thirdly, Kedward brings the period alive as a result of his many interviews with former *résistants*. Of course this type of oral evidence has its limitations, but for a phenomena like the Resistance, for which documentary evidence is inevitably limited, it is one of the best sources available, and the late 1960s and early 1970s was probably the best time to collect such evidence. There were still an adequate number of witnesses available, and yet the war was sufficiently far away for them to be able to express their views dispassionately. Certainly, this book benefits greatly not only from the detailed interview profiles in the last chapter, but also from the large amount of oral evidence interwoven into the text. Overall, this is a scholarly and as well as refreshingly individualistic study of the Resistance.

R. E. M. Irving

Sir George Gilbert Scott's competition design for the Foreign Office, London, 1857: facade in St James's Park, which is reproduced in Victorian Architecture, by Roger Dixon and Stefan Muthesius, published by Thames and Hudson at £5.50.

An Indian tragedy

Red Gold: the conquest of the Brazilian Indians
by John Hemming
Macmillan, £9.95
ISBN 0 333 12861 4

The major theme of this fine study is the destruction of the Brazilian Indians. John Hemming states in his preface: "There have been many studies of individual tribes and much fine history of colonial Brazil. But this book is the first attempt at a history of all Brazilian Indians during these centuries of colonial conquest."

He has pursued an enormous amount of careful scholarship and specialist knowledge into his service; he has travelled, observed and noted; and he has built on the major works of Boxer, Kiernan, and Mörner, among many others. The fact remains that we know comparatively little of the Indians in the period covered by *Red Gold*, which is from the discovery of the New World to the expulsion of the Jesuits in the 1760s. Looking the advanced civilizations that Spaniards met in Mexico and Peru, the Portuguese territories harboured only a tiny range of primitive tribes, some of them undiscovered to this day. The Indians had no cultural achievements, no monuments or personal records, nothing in short to provide the scenario for the type of dramatic clash between civilizations that contributed so greatly to the success of Hemming's last book, *The Conquest of the Incas*.

One of the more obvious disappointments of the book, however, is that it is clearly not "a history of all Brazilian Indians" in the colonial period. Such a history may well be impossible to write. Hemming also tells us little of the anthropology of the tribes, and prefers to highlight the exotic and the notable, such as the cannibalism, sexual customs and the prevalence of cannibalism. Within these limitations, however, it is true that the author has conscientiously kept the Indian regularly in the picture as the essential element underlying the various parts of his story. And not simply "the Indian" as an anonymous entity. On the contrary, the name, location and character of each tribe are recorded faithfully; their fate is clearly noted; and so piece by piece the awful canvas of the destruction of the Brazilian Indians take shape. A final appendix gives an educated guess at the scale of the tragedy. Using estimates given by other authorities, and adding his own, Hemming offers a total of 2,131,000 for the number of Indians in Brazil in 1500, compared with 100,000 today. There will be a sequel, to bring the story up to the present day.

The fate of the Brazilian Indians does not seem in retrospect to have been surprising, or even as tragic as the far more devastating catastrophe that occurred in the areas of the colonies of Spanish and European diseases, as elsewhere in the New World, were the principal cause of depopulation; but ferocious attacks of colonists, Portuguese and Dutch, helped deplete Indian tribes, divide them against each other, and drive them for shelter even further into the interior. The Brazilians were ill-equipped to survive. The imbalance between their culture and that of the invaders was one that the Jesuits in particular attempted to bridge, but without success.

One common aspect of the Portuguese conquest was that there was no growth of a moral uneasiness about the whole operation, such as occurred in Spanish America where the clergy, led by Las Casas, questioned the conquest and fought for the dignity of the Indian. In Brazil these doubts were never raised. The great defender of the Indians in the seventeenth century Jesuit Antonio Vieira, limited his efforts to a struggle against slavery, and was obliged to concede in our terms that of despair that the politics of "the least human people that ever lived in the world" hinged on the difference between not in the greater turpitude of Portuguese colonists (Vieira detested all of the tribe), but in much more primitive and the unimpressive civilization of Brazil itself.

The main body of this book is in a narrative account of the conquest. The scholarship is impeccable there are over 50 pages of notes at the end—but not weigh heavily on the reader. Perhaps the most interesting evidence for this is the heroic, of the story are those among the conquerors: men such as the Spaniard Orellana, who is said down the Amazon; Sebastião Lavores, the Slav adventurer who travelled in the jungle, nurses the savage tribes of South America; Vasconcelos, the famous court preacher whose image of 15 gave up a brilliant career in courtiers and rescue slaves. A large part of the book inevitably centres on the sixteenth century, when the image of a frontiersman (bandeirante) were fighting on one hand the Dutch invaders, on the other the Spaniards, and in the interior against the Spaniards, who at all times internally against the Jesuit settlements which sought to protect the tribes. The struggle between colonists and missionaries was found in end up in the Spanish territories, and the defeat of the Jesuits. Once they were driven out of the direction among the Indians, and the last hope for the Indians perished with their departure.

This is a memorable book, but the book of a geographer rather than of an historian or anthropologist; but with contributions from all three disciplines to one of the most tragic of issues.

Henry Kamen

This week's reviewers

G. W. S. Barrow is professor of Scottish history at St Andrews University and his books include Feudal Britain.

K. C. Bowler is in the physics department of Edinburgh University.

Ian Budge is professor of government at Essex University.

Duncan Forbes is lecturer in history at Cambridge University.

R. E. M. Irving is lecturer in politics at Edinburgh University and author of Christian Democracy in France.

Henry Kamen is reader in history at Warwick University.

Juliet Lodge is lecturer in politics at the University of Hull.

Stephen Mennell is lecturer in sociology at Exeter University and author of Cultural Policy in Towns.

Martin Pollock is emeritus professor of molecular biology at Edinburgh University.

Robert W. Steel is principal of University College, Swansea.

Tony Tanner is lecturer in English at Cambridge University.

Robin J. Wilson lectures in mathematics for the Open University.

The heart of the Viking whirlwind

Scandinavian Kings in the British Isles, 850-880
by Alfred P. Smyth
Oxford University Press, £10.00
ISBN 0 19 821865 6

The direct contribution made by Scandinavians to the history of the British Isles by wey of settlement and sovereignty continued for nearly 700 years, from the late eighth century until 1469. A process so protracted and complex was bound to have profound and varied effects, some of which have endured till our own times—as we are reminded whenever Shetlanders, who have been part of Scotland for five centuries, emphasize their distinctive position within that realm. Normally, the role of Norwegians and Danes (east Scandinavians or Swedes played little part in British history) was peaceful, a matter of agricultural and pastoral settlement, or the taking of lordship on a relatively lowly level. This gradual absorption of men and women from the north produced the most prominent and still the most conspicuous evidence of their presence, a thick layer of Danish place-names between the rivers Welland and Tees, an appreciable sprinkling of Danish, Norse and Norse-Irish place-names from the Yorkshire-Lancashire Pennines through to southern Dumfriesshire and the Solway shore, a more or less dense spread of Norse place-names in the Isle of Man and the Hebrides (extremely concentrated in Skye, Harris and Lewis), and an almost totally Scandinavian nomenclature in the Northern Isles.

Now and again, the Scandinavian impact was hostile and bellicose, for example in the Danish conquest of England by Swein Forkbeard and his son Cnut, or in the expeditions of the kings of Norway, Magnus Barelegs (1098) and Hakon IV (1263), to the Isles of Scotland. During the third quarter of the ninth century, intense Scandinavian aggression in Britain and Ireland served on erratic path of destruction from Dublin to Strathclyde, from East Anglia to York, crossing the length and breadth of the English midlands and penetrating deep into Wessex. If King Alfred had not defeated Guthrum at Edington in Wiltshire almost exactly 11 centuries ago (May 11, 878), England would certainly have become Danish in a more thoroughgoing and permanent way than proved possible by Cnut's time. In northern Britain the Danish onslaught had the paradoxical effect of drawing Scots and Picts closer together. What befell the Strathclyde Britons is far from clear, but Northumbria shrank in a much-ravaged Bernicia while its southern half (Yorkshire) became a Danish kingdom. Though Ireland enjoyed some respite after 880, the country never fully recovered from the battering it received at the hands of ninth-century Vikings.

It is hardly surprising that the evidence available to the historian who seeks to penetrate and elucidate the Viking whirlwind of 851-78 is baffling in its complexity, transmitted as it is in at least six major languages, belonging to many different periods and ranging from unvarnished narrative to prose and verse literary products of the highest artificial. Dr Smyth has a remarkable facility in the three principal vernacular disciplines of Irish, Welsh, English, and Old Irish, and has read manuscripts, his chief quarry, that the famous and far from reliable diary Viking Ragnar Lodbrok, and his sons, especially Ivar the Boneless and Halfdan, were at the heart of the whirlwind, terrorizing Ireland, Northumbria and East Anglia and dominating a sea-borne empire based on Dublin and Scotland. Smyth's arguments for the existence of this remarkable, transitory heathen dynasty carry considerable but unfortunately he claims too much, almost all his problems are not two many hypotheses. The reader is pressed repeatedly and very hard so that, for example, the chronology of Kenneth MacAlpin's reign, the size of Guthrum's army, Smyth is less than convincing, but he has produced a study of a crucial period of Viking activity which no student of the period can afford to ignore.

G. W. S. Barrow

NOTICE BOARD

Noticeboard is compiled by Patricia Santinelli and Mila Goldie

Open University programmes July 8 to 14

Saturday July 8

BBC 1
6.45 Geologies. Polymorphism in Stones (R) (repeat).
7.25 Participation design and development: The Prince of Wales Jean Hoefler (R) (repeat).
8.05 The mathematical person in the community. The Residential Worker Part 1 (R) (repeat).
11.00 Geology and ground atlas.
11.25 Mathematics and computers. Algorithms and from 10 to the power ... Algebra and social fault ... Sociological perspective: Needs ... Mathematics and computers. Introduction to Pascal. Data structures ... Mathematics and computers. Mask 1 (R).
12.15 Mathematics and computers. Introduction to Pascal. The Hand ... (R) (repeat).
12.40 Developments of Data ... Sorting of ... Mathematics and computers. Mask 2.
11.05 Developments in education. Comprehensive Schools (R) (repeat).
13.30 Central Government and Politics ... Elements of a Decision (R) (repeat).

RADIO 3 (VHF)
6.00 Breakfast and relaxation (repeat).
6.30 Information Studies (repeat).
6.40 Church and State on the Eve of Reformation.
7.00 The Battle of Quality: Campaign Director and Jim Bullard editor ... Bernard and Jim Bullard editor ... Stephen Cohen and Sociology ... Education and Social Control (repeat).
7.20 Science foundation course. Brain ... Switching (repeat).
7.45 Poetry Forum—24.

RADIO 4 (VHF)
9.10 The revolutions of 1848: Metternich and the Hapsburg Police Hilda ... The early Hanoverians and the Life of the Lands (repeat).
9.50 Hilda Bailey Lecture: Attitudes to Sex and the Law (repeat).
10.10 Science and the Art of Technology ... Hilda ... (repeat).
10.40 Science and the Art of Technology ... Hilda ... (repeat).

RADIO 3 (VHF)
21.00 Library of architecture and design. Rand and Hoare (repeat).
21.30 Hilda Bailey Lecture: Attitudes to Sex and the Law (repeat).
00.40 The development of instruments and ... (repeat).

Sunday July 9

Monday July 10

BBC 1
6.40 Lion ...
6.50 Dance ...
7.15 Lion ... the sun and development: ... Mass ... Earth ...
7.30 ... Banks and ... Illustrations.

BBC 2
6.40 Modern performance. Human Locomotion: Walking ... Systems ... Minerva ... Ireland ... The Hidden Inequalities ... (repeat).
7.15 Minerva ... Ireland ... The Hidden Inequalities ... (repeat).
7.30 ... Ireland ... The Hidden Inequalities ... (repeat).
10.55 ... Brown Lupton and the ... of Coalbrookdale ... Trade ... Geology ... Industrial Processes ... (repeat).
17.20 ... Industrial Processes ... (repeat).
17.45 Hilda Matheson ... Conference ... (repeat).
18.10 Mathematics Foundation course: Exploring ... (repeat).
18.25 Technology and ... Technology and ... (repeat).

RADIO 3 (VHF)
6.00 Period of technology. Edwin Hall ... (repeat).
6.20 Travellers ... Interviews in Man ... (repeat).
6.40 Lecture ... History 1500-1700: ... and the Spread of ... Sociological perspective: Needs ... Mass ... The Objectives of ... (repeat).
17.45 ... (repeat).
18.05 ... (repeat).
18.25 Topics in pure mathematics. A ... (repeat).
18.45 The Use of Materials ...
19.05 Mathematics and ... Mask 111.
19.10 Making ... Technology ... (repeat).

Alternative broadcasts for North Scottish and Welsh transmitters
24.00 Economics and education policy: ... for higher ... (repeat).
00.20 Modern art from 1900 to the ... and social fault ... Revolutionary Utopia AD 1492 ... (repeat).
00.40 Thought and reality: central themes in Wittgenstein's philosophy: Wittgenstein's ... (repeat).

Tuesday July 11

BBC 1
6.40 The nineteenth-century novel and its ... Dickens and the ... Mary ... (repeat).
7.05 Bar and society: The Strategic ... Mary ... (repeat).
7.30 Energy and information: Biography ... (repeat).

BBC 2
6.40 Fundamentals of statistical ... Hawaiian Interests ... (repeat).
7.05 Conservation physiology: Hormones and Homeostasis ... Manipulation and Control ... (repeat).
7.30 Numerical computation: Iterational ... (repeat).
16.55 An introduction to technology ... (repeat).
17.20 Decision making in Britain (repeat).
17.45 Government and industry: Government and ... Miners—A ... (repeat).
18.10 The use of resources: Humphry Davy: ... (repeat).
18.35 Science foundation course. Society and Population (repeat).

RADIO 3 (VHF)
6.00 Earth science today and tomorrow: Tutor ... (repeat).
6.20 Travellers and ... (repeat).
6.40 Social work, community work and ... Participation ... (repeat).
17.45 Blue-breeders and molecular biology: Pulp Acid Genetics. The theory and application of Patterns ... (repeat).
18.05 An introduction to psychology: Introduction to Information Process ... (repeat).
18.25 The digital computer: ... (repeat).
18.45 Mathematics and computers. Algorithms and ... Mask 111.
19.05 Economics and education policy: ... (repeat).
19.10 Thought and reality: central themes in Wittgenstein's philosophy: Wittgenstein's ... (repeat).

Alternative broadcasts for north Scottish and Welsh transmitters
24.00 Twentieth century poetry: Home ... (repeat).
00.20 Social work, community work and ... Participation ... (repeat).
00.40 Open Forum—24.

Wednesday July 12

BBC 1
6.40 Fundamentals of human geography: ... (repeat).
6.50 Linear mathematics. Conversion ... (repeat).
7.30 The Handicapped person in the community. The Residential Worker: Part 1 (repeat).

BBC 2
6.40 Material under stress: Beating the ... The Institute of Chemistry: The Development of Electrochemistry ... (repeat).
7.05 History of architecture and design ... (repeat).
7.30 Hilda ... English Halls of ... (repeat).

RADIO 3 (VHF)
6.00 People and work. Time (repeat).
6.20 Technology for teachers. The Southbank Experience (repeat).
6.40 Technological society (repeat).
17.45 Technology for teachers. The Southbank Experience (repeat).
18.05 Methods of educational inquiry: ... (repeat).
18.25 Technology for teachers. The Uses of Leaf Analysis (repeat).
18.45 Technology for teachers. The Uses of Heat and Infrared ... (repeat).
19.05 Technology for teachers. The Uses of Wood ... (repeat).
19.10 Technology for teachers. The Uses of Textiles ... (repeat).

Alternative broadcasts for north Scottish and Welsh transmitters
24.00 Economics and education policy: ... (repeat).
00.20 Modern art from 1900 to the ... and social fault ... Revolutionary Utopia AD 1492 ... (repeat).
00.40 Thought and reality: central themes in Wittgenstein's philosophy: Wittgenstein's ... (repeat).

Thursday July 13

BBC 1
6.40 Introduction to engineering mechanics. Part 1 Laws of Thermodynamics ... (repeat).
7.05 Technology and the ... (repeat).
7.30 Social work, community work and ... Participation ... (repeat).

BBC 2
6.40 Mass communication and society: The ... (repeat).
7.05 The ... Tailoring ... Community in Conflict ... (repeat).
7.30 Multivariate ... (repeat).

RADIO 3 (VHF)
6.00 Humph and reality: central themes in Wittgenstein's philosophy: Wittgenstein's ... (repeat).
6.20 Medical psychology: Analysis ... (repeat).
6.40 Technology for teachers. Data ... (repeat).
17.45 Technology and computers. Data Processing ... (repeat).
18.05 Technology and computers. Algorithms ... (repeat).
18.25 An algorithmic approach to computing ... (repeat).
18.45 Technology and computers. Data Structures ... (repeat).
19.05 Developments in education. Comprehensive Schools ... (repeat).
19.10 Technology and computers. Mask 111.

Alternative broadcasts for north Scottish and Welsh transmitters
24.00 Twentieth century poetry: Home ... (repeat).
00.20 Social work, community work and ... Participation ... (repeat).
00.40 Open Forum—24.

Friday July 14

BBC 1
6.40 The age of revolutions: Humphry Davy—Tumbler of Electrochemistry ... (repeat).
7.05 Technology and the ... (repeat).
7.30 Hands ... Transportation in Snails ... (repeat).

BBC 2
6.40 Economics and education policy: Choice in Education ... (repeat).
7.05 Decision making in Britain ... (repeat).
7.30 Government and industry: Government and ... Miners—A Simple ... (repeat).
18.25 Social work, community work and ... Participation ... (repeat).
18.45 History of architecture and design ... (repeat).
19.05 Mechanics and applied calculus: Introduction to ... Gordon Russell and Modern British Craftsmanship ... (repeat).
19.05 Science foundation course: Prosopagnosia ... (repeat).
7.05 Science foundation course: Drosophila and its Parasites ... (repeat).

Alternative broadcasts for north scottish and Welsh transmitters
24.00 Environmental control and public health: Humphry Davy—the Legal Issues ... (repeat).
00.20 Technology for teachers: The Scientific Experiment ... (repeat).
00.40 Technology for teachers. Urban Sites ... (repeat).

* repeated programme

Chairs

Professor **F. I. Musser**, formerly head of the Institute of Urban and Regional Planning at the University of Utrecht, has been appointed professor and head of the department of town and regional planning at the University of Sheffield.

Mr N. Lewis, formerly senior lecturer in law at the University of Hull, has been appointed to the chair of law at the University of Sheffield.

Dr J. Crangle, reader in the department of physics, has been promoted to a personal chair in the department of physics at the University of Sheffield.

Dr P. M. Harrison, reader in biochemistry has been promoted to a personal chair in the department of biochemistry at the University of Sheffield.

Mr B. A. Chadwick, professor of metallurgy and materials at the University of Queensland, has been appointed to the chair of engineering materials with chair of engineering materials at the University of Southampton, with effect from September 1, 1978.

Dr G. T. Hillsple, senior lecturer in the department of Iberian, has been promoted to a personal chair at the University of Wales.

Dr M. G. Jarrett, reader in the department of architecture, has been promoted to a personal chair at the University of Wales.

Dr David Lloyd, reader in the department of microbiology, has been promoted to a personal chair at the University of Wales.

Professor Philip Williams, professor and dean of the faculty of educational studies at the Open University, has been appointed to the chair of education at the University College of North Wales.

Mr G. B. Hunter, reader in the department of logic and metaphysics and acting head of department at the University of St Andrews, has been appointed to the chair of philosophy at the University College, Bangor.

Appointments

Universities

Exeter
Deputy vice-chancellor: Professor W. L. D. Ravenhill. Lecturers: D. J. Cook (computer science); Dr A. C. Cook (French); J. G. Glynn (accountancy); Mrs H. B. Loveless (law).

Leeds
Lecturers: Susan J. Allen (English); Miss Hanna J. Bowles (biochemistry); S. M. Hammond (microbiology); A. Taylor (history); A. Sillibs (education). Fixed-term lecturers: Miss Shirleah M. J. Brooks (law); J. S. Davis (mining and mineral sciences); R. Morris (physiology); R. Simmons (romanic studies); A. G. Foster (history). Lecturers—temporary: S. J. Blumrock and A. F. Long (Nuffield Centre for Health Services); Margaret T. Southwell (politics); K. Ward (adult education and extra-mural studies). Research fellows: E. Conditoral (history); Carla Patterson (Spanish); Mrs Joan L. Battersby, Tutor in health visiting; Marilyn C. Cofield (institute of extension studies); Assistant librarian: L. B. Jackson. Computer officer: F. S. Marsh (computer laboratory).

Imperial College, London
Secretary and clerk to the governors: John H. Smith.

Liverpool
Sub-dean of the Faculty of Veterinary Science: Dr E. C. Pirkering. Senior lecturers: Jennifer M. Hunter (anaesthesia); J. H. Patrick (orthopaedic surgery); Dr. W. Day (pathology). Lecturers: Mrs Eleanor Wright (medical biology); H. McK. Cowan (pathology); H. C. Cheby (applied social studies, department of sociology); B. J. Foley (economics and industrial studies, Institute of Extension Studies). Director of nursing studies: Mrs Joan L. Battersby. Tutor in health visiting: Marilyn C. Cofield (institute of Extension Studies). Assistant librarian: L. B. Jackson. Computer officer: F. S. Marsh (computer laboratory).

COURSES

Thinking further about management?

Applications are now being invited for the PhD programme at Cranfield School of Management, studies to commence during 1978. We are looking for people with a first or upper second class degree who have a research interest in any aspect of management, such as human resources, marketing or operations management.

Until the end of July, a certain number of SSRC awards are available to the right candidates.

Doctoral students at Cranfield work either individually or within one of the Research Centres attached to several of the main business areas. Our research projects are designed and carried on in close association with industry and business.

On completion of their degree, our PhD students have tended to go back into business (80 : to date) or have moved into teaching posts. Enquiries, quoting reference number T/1, should be directed to Dr John Gallorna.

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Cranfield, Bedford MK43 0AL
Telephone: Bedford (0234) 751122 Telex: 825072

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Universities

Applications are invited for the following posts, for which applications close on the dates shown. Salaries (unless otherwise stated) are as follows: Professor $A31,248; Research Fellow, $A14,984 to $A19,559; Lecturer, $A14,984 to $A18,654; Tutor, $A10,765 to $A12,702. Further details, conditions of appointment for each post, method of application and application form, where applicable, may be obtained from the Association of Commonwealth Universities (Appointments), 36 Gordon Square, London WC1H 0PF.

University of Adelaide
LECTURER IN ECONOMICS
From January, 1979, to teach in one of the core economics courses. Applications will be specially welcomed from persons with expertise in one of: transport economics, resource economics, mathematical economics, business economics; but well-qualified persons expert in other areas are encouraged to apply.
August 25, 1978

Australian National University
RESEARCH FELLOWS DEPARTMENT OF PACIFIC AND SOUTH-EAST ASIAN HISTORY
Research School of Pacific Studies
The Department is about to promote research in the history of South-East Asia, Papua New Guinea, and the Pacific Islands. Applicants for the posts may be specialists in any aspect of the history of these areas. The posts are tenurial appointments intended to enable scholars to complete an important piece of research. Applicants will be expected to have demonstrated their competence in research, and provide a clear statement of their intended work while in the Department.
In addition to primary concern with research, successful applicants will be required to supervise PhD students and participate in other graduate programmes. Applicants should submit examples of their work with their applications.
August 4, 1978

University of Melbourne
CHAIR OF VETERINARY PHYSIOLOGY
Applications are invited for appointment to the Chair of Veterinary Physiology.
September 30, 1978

Lecturers—School of Physics
The current research interests of the School are high energy physics, diffraction physics, low energy nuclear physics and theoretical physics. The successful applicants will be required to teach at an undergraduate level by lecturing or supervising laboratory classes, to supervise research students and to conduct research in one of the above areas of physics.
Qualifications: PhD with postdoctoral experience.
August 31, 1978

Murdoch University, Perth
Murdoch University, Western Australia's second university, admitted its first students in February, 1975. The University is committed to taking a fresh approach to higher education, with the goal of responding directly to the conditions and needs of the late twentieth century. This is reflected in admission policies, organizational structures, programmes of study, philosophies of teaching and recruitment of staff. The University is organized on a system of schools of study, with the Dean of each school sharing both academic and administrative responsibility.
TUTOR IN EDUCATION (CURRICULUM STUDIES)
School of Education
Head, Professor B. V. Hill
Applicants should have academic qualifications and experience in a major teaching area of primary or secondary schools. Further study and experience in Curriculum Development would be an advantage.
The successful applicant will be encouraged to take further postgraduate studies in Education.
Note: Would please two candidates please note that reference letters may be consulted in London until July 16, 1978, on telephone 01 240 7194.
July 31, 1978

La Trobe University, Melbourne
LECTURER IN PSYCHOLOGY
The appointee will engage in teaching to undergraduate students, research supervision of both postgraduate and undergraduate students, and planning of curriculum. Preference will be given to applicants with a higher degree with research and undergraduate and graduate teaching experience in experimental social behaviour and/or philosophy and methodology of psychology.
July 26, 1978

University of Adelaide
LECTURER IN MEDICINE
From January, 1979, from candidates with medical degrees registrable in South Australia and with training in the basic laboratory aspects of pathology. Research interests of the unit concerned include immunological aspects of intestinal infections and inflammatory bowel diseases and gastrointestinal aspects of immunodeficiency. Salary plus a clinical loading of $A5,000 for a registrable medical qualification.
July 31, 1978

THE UNIVERSITY OF PAPUA NEW GUINEA (PORT MORESBY)
Applications are invited for the following posts:—

PROFESSOR OF MATHEMATICS
CLOSING DATE 4th August, 1978.
Applicants should possess a distinguished academic record in Mathematics or Mathematics Education, with a Doctorate or equivalent, and must have experience in both teaching and research. Experience in a developing country with an interest in the problems of teaching mathematics in a developing situation would be desirable. The appointee will be expected to provide leadership within the department in both teaching at all levels and research. He/she will also be expected to participate in the Staff Development Programme for National Academic Staff and provide supervision for higher degree students. He/she need not necessarily carry any administrative responsibilities although he/she is eligible for election to positions carrying such responsibilities. The current research interests of the department include algebra, analysis, applied mathematics, statistics, computing and mathematical education. The heaviest teaching load in the department is in service courses at Preliminary Year and First Year level. It is expected that in future years mathematics courses will be geared towards training teachers and statisticians/applied mathematics specialists. It is hoped that the appointee will take up appointment in 1979.
DEPARTMENT OF CHEMISTRY (to commence January, 1979). CLOSING DATE 28th July, 1978.

LECTURER
Applicants should have a higher degree and should be competent to teach Physical Chemistry courses offered by the Department as well as General Chemistry to students in the first two years and Preliminary Year.

TUTOR/SENIOR TUTOR
Applicants should have a degree in Chemistry and good teaching experience. Applicants should be competent to teach General Chemistry to First Year and Preliminary Year students. An ability to teach other Science subjects to Preliminary Year students might be an advantage.
Salary scales: Professor, K20,010 p.a.; Lecturer, K10,159-K14,018 p.a.; Senior Tutor, K8,943-K9,933 p.a.; Tutor, K7,156-K8,107 p.a. (1 kina = $A1.11). In addition, an allowance of K1,000 p.a. if single is payable. An extra K1,000 Marriage Allowance and K156 per child Child Allowance may also be payable. Conditions include provision of housing, annual leave fares, study leave and PSSU. In some cases it may be possible to make an appointment on secondment. Detailed applications (2 copies) with curriculum vitae and naming 3 referees, to be sent to Secretary, Box 4820, University P.O., Papua New Guinea, with whom applications close on the dates indicated above. Applicants resident in the U.K. should send one copy to Inter-University Council, 90-91 Tottenham Court Road, London, W1P 0DT. Further details may be obtained from either address.

UNIVERSITY OF CAMBRIDGE
DEPARTMENT OF ENGINEERING
LECTURESHIP IN INDUSTRIAL SOCIOLOGY
Applications are invited for a University Lectureship in Industrial Sociology, with special reference to Industrial Relations or Personnel Management or Organizational Behaviour. This Lectureship is being re-advertised, and candidates who applied in response to the previous advertisement need not reapply. The person appointed will be expected to contribute to teaching and research within the Management Studies Group of the Engineering Department. Substantial industrial experience will be regarded as an important qualification for the Lectureship.
Pensionable salary scale: £5053-£7782 p.a., depending on age and experience.
Further information and application forms may be obtained from the Secretary of the Appointments Committee, University Engineering Laboratory, Trumpington Street, Cambridge CB2 1PZ, to whom applications should be sent not later than August 31, 1978.

UNIVERSITY OF STRATHCLYDE
STRATHCLYDE BUSINESS SCHOOL
PROFESSOR OF BUSINESS ADMINISTRATION
(with special reference to general management and policy)
Applications are invited for this appointment in the Strathclyde Business School.
Candidates must have high academic qualifications and experience of teaching and course application in the field of general management and/or business policy.
The post will be remunerated within the professorial range for universities with USS benefits.
Application forms and further particulars (quoting 40/78) may be obtained from The Registrar, University of Strathclyde, Royal College, 204 George Street, Glasgow G1 1XW, with whom applications must be lodged by 31st July, 1978.

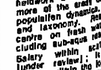
University of South Africa
P.O. Box 392, Pretoria 0001

Head of the Department of Russian
Applications are invited for the appointment to the above post with the rank of professor or senior lecturer according to qualifications. Duties to be assumed on 1st January, 1979.
Experience in teaching Russian language and literature to undergraduate and postgraduate students will be a recommendation.
Applications including curriculum vitae, detailed statement of professional experience, publications etc., names and addresses of three referees should reach the Director, Personnel Department, University of South Africa, P.O. Box 392, Pretoria 0001, not later than 15th August, 1978, from which further particulars regarding conditions of appointment, salary, etc., can be obtained.

UNIVERSITY OF SINGAPORE
SOCIOLOGY
Applications are invited for appointment to Lecturer and Senior Lectureships in the Department of Sociology from candidates who possess a Ph.D. degree in Sociology or Anthropology. Preference will be given to candidates who have research interests in Southeast Asia and who are able to teach in the following areas: URBAN SOCIOLOGY; INDUSTRIAL SOCIOLOGY; SOCIOLOGY OF DEVIANCE; SOCIOLOGY OF ETHNICITY; URBAN ANTHROPOLOGY. Candidates should state their areas of interest in their application.
Salary: monthly emoluments in range from $$1,445 to $$2,[illegible] the initial amount depending on the candidate's qualifications and experience and the level of appointment offered. In addition, the University pays a 13th month bonus and an annual allowance of one month's salary in December each year. Leave, subsidized housing, medical and dependent fund benefits are also available. Candidates should write to: The Registrar, University of Singapore, Bukit Timah Ridge, Singapore 5, giving curriculum vitae (bio-data) and with full personal particulars and also the names and addresses of three referees.

ULSTER
THE NEW UNIVERSITY
POSTDOCTORAL RESEARCH FELLOWSHIP IN ORGANIC CHEMISTRY
Applications are invited for an S.R.C. sponsored Research Fellowship involving work in collaboration with Dr. D. M. Harrison on electrochemical aspects of the biosynthesis of fungal metabolites. The appointment will be for one year from 1st October, 1978 in the first instance and may be renewed for a second year.
Salary range: £3,600-£3,695-£4,145 per annum (with FSSU/USS).
Further particulars may be obtained from The Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA (quoting Ref.: 78/77) to whom applications together with Curriculum Vitae and names and addresses of three referees should be sent as soon as possible.

Lecturer in Ecology
Applications are invited for the post of LECTURER in Ecology tenurable to take up duties as from September or as soon as thereafter. The successful candidate will be required to teach at undergraduate level in more of the areas of ecology, population dynamics, ecological and taxonomy. The post is based in centre on fresh water research including sub-aqua research. Salary within the scale £2,695-£4,145 per annum (quoting reference 2/78) and enclosing a self-addressed envelope (9" x 4") may be obtained from the Academic Appointments Officer, University of Strathclyde, Royal College Building, 204 George Street, Glasgow G1 1XW with whom applications should be lodged by 28th July, 1978.



Loughborough

Universities continued

THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY
DEPARTMENT OF CHEMICAL TECHNOLOGY
57/78 LECTURER/SENIOR LECTURER
A Lecturer/Senior Lecturer is required in either of the fields of Food Technology or Microbiology.
Applicants should have a higher degree, or a good first degree and industrial experience. A genuine interest in the problems of developing countries is essential. The department offers a two-year degree course with specialisation in either Food or Mineral Technology. Specialisation commences in the third year and the course includes a period of industrial training.
Salary Range:
Lecturer K10159 range K13893
Senior Lecturer K14129 range K15041
(1 Kina = A$1.20, K1 = NZ$1.35, K1 = £0.74 New Pence.)
Allowances: In addition an allowance of K1300 (single), K2300 (married), plus K156 (per child) is payable annually. Conditions of appointment, which will be for up to three years period, will also include furnished housing at nominal rental, six weeks' leave per year with fare assistance provided, generous education allowance (including fares), for children undertaking secondary education overseas, and superannuation benefits. Study Leave after five semesters is also given to academic staff.
Applications, which should be completed in duplicate, should state age, family particulars, qualifications, experience, present post, and the names and addresses of three referees from whom confidential enquiries may be made, and should be directed to the Registrar, The Papua New Guinea University of Technology, P.O. Box 793, LAE, Papua New Guinea. An additional copy of the application should be sent to A.C.U., Appointments, 36 Gordon Square, LONDON WC1H 0PF. Applications close 31/7/78.

UNIVERSITY OF LONDON
Deputy Secretary (ACCOUNTING)
Applications are invited for this Senior Administrative post which will become vacant on the retirement of Mr. A. G. Wall on 30th September, 1978. The Deputy Secretary (Accounting) is head of the Accounting Division of the Central Administrative Offices of the University, reporting directly to the Secretary for Accounting and Administrative Computing. The Division, which has a permanent staff of just under 60, provides full accounting services to the Court, Senate, Senate Institutes.
Candidates should be qualified accountants with experience in a senior financial or accounting role and possess a keen interest in accounting standards, management reporting and the discriminating use of computerised accounting systems.
Appointment will be made within the national salary range for which is £9,800 + £460 p.a. L.A. The post is pensionable under USS and carries six weeks' annual leave.
Further particulars are available from the Personnel Officer, University of London, Senate House, Malet Street, London WC1E 7HU. The closing date for receipt of application (no forms) is 21st July, 1970.

UNIVERSITY OF JOS NIGERIA
Applications are invited for the post of PROFESSOR and HEAD of the DEPARTMENT OF PHYSICS — FACULTY OF NATURAL SCIENCES. Appointee will be required to build up a young Department and provide leadership needed during period of rapid growth. The original student intake will enter their fourth and final year for the BSc in 1978/9 and the move to an extensive permanent campus will be taking place over the next few years. Salary scale: N1,1,268 to N1,2,420 p.a. (£1,549 to £10,525 pd (11 sterling = N1.18). There may be Salary supplementation of £2,160 pa (sterling) for married appointees (currently taxed at 25% and normally free of all tax), plus provision of children's education allowances and holiday visit passages. Single appointee will not attract the supplement. 25 per cent of salary contract inhibition (partly taxable) is also payable; Family passages; baggage allowance; Superannuation Scheme; car allowance and loan; housing allowance; various allowances. Detailed applications (12 copies) with curriculum vitae to be sent to Registrar, University of Jos, PMB 2084, Jos, Nigeria by August 7, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

PROFESSOR, CHAIR OF LITERATURE
To fill the newly established Therese Kayser Lindsey Chair of Literature, the English Department of Southwest Texas State University seeks nominations and applications of an outstanding critic, teacher, or writer whose services will enrich the university community. Position: Professor of English, term (beginning Sept. 1, 1979) and compensation to be negotiated. Deadline for postmark of nominations and applications is October 2, 1978. Address: David Stevens, English Department, Southwest Texas State University, San Marcos, Texas 78666.
An Affirmative Action/Equal Opportunity Employer

FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
APPOINTMENT OF
VICE-CHANCELLOR
The Vice-Chancelloship of the University will become vacant on 31st December, 1979. The present Vice-Chancellor, Professor W. Russell, retires on 31st December, 1979.
The University is now considering the appointment of a successor to Professor Russell and invites nominations from suitably qualified persons.
Information about the appointment and the University may be obtained from the Secretary General, The Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.
Candidates should be directed in first instance to The Registrar, The Flinders University of South Australia, Bedford Park, South Australia 5042.

UNIVERSITY OF STRATHCLYDE
Applications are invited from graduates with a good honours degree and library qualifications for the post of
ASSISTANT LIBRARIAN II (AUTOMATION) in the ANDERSONIAN LIBRARY
Applicants should have substantial experience in modern library management and computer-assisted applications in an academic, public or special library. Salary scale £3650-£4175 per annum (range 1A for Senior Library Staff with USS benefits.
Application forms and further particulars (quoting 38/78) and enclosing a self-addressed envelope (9" x 4") may be obtained from the Academic Appointments Officer, University of Strathclyde, Royal College Building, 204 George Street, Glasgow G1 1XW with whom applications should be lodged by 28th July, 1978.

NATIONAL UNIVERSITY OF LESOTHO
Applications are invited for the post of full-time **DEMONSTRATOR IN CHEMISTRY.** Main duties will include demonstrating in Part I practical classes and the marking of laboratory reports and assignments for Year I of the B.Sc. Minimum qualifications are a B.Sc. General Degree with Chemistry as a major subject. Appointment will be on contract for a two-year period initially, with the possibility of renewal after two years. Salary scale: R3,906-R4,356 p.a. (£1 sterling = R1.59). Housing dependent on the availability of accommodation; family passages; baggage allowance. Detailed applications (2 copies), with curriculum vitae, naming three referees, by August 7, 1978, to the Registrar (Appts), NUL, Roma, Lesotho. Applicants resident in the UK should send one copy to the Inter-University Council for Higher Education Overseas, 90-91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

NATIONAL UNIVERSITY OF LESOTHO
Applications are invited for the foundation post of DIRECTOR of the INSTITUTE OF SOUTHERN AFRICAN STUDIES, shortly to be opened by January 1979. The Director will be required to play a major role in the establishment of the Institute, whose purpose will be to promote and coordinate inter-disciplinary research into contemporary problems in Southern African studies. Given Lesotho's unique political-geographical location, it is hoped that the Institute will develop as a major centre for academic enquiry into the Southern African region and that it will forge links between the University, the national community and interested scholars and institutions elsewhere through the publication of a journal and the sponsoring of conferences, seminars and workshops. The Directorship will be a senior appointment, at the Professorial or Associate Professorial level. Candidates should possess a higher degree in any relevant discipline in the Humanities or Social Sciences, and should be able to demonstrate a professional and committed concern with Southern Africa as a region. Whilst it is expected that candidates should have a strong research involvement, the appointee should also have administrative experience, preferably with some background in academic publishing both as an author and editor. Salary scales: Professor—R8,580-R9,000 p.a. Associate Professor—R6,258-R6,565 p.a. (£1 sterling equals R1.59). The British Government may supplement salary in range £2,994-£3,870 p.a. (sterling) for married appointees or £1,890-£2,756 p.a. (sterling) for single appointees (these rates are subject to the approval of the Government of Lesotho, are reviewed annually and are normally free of all tax) and provide children's education allowances and holiday visit passages. Non-contributory pension scheme for appointees on permanent terms of service. Appointees on short contract (term) receive 25% gratuity in lieu of superannuation for the first two years of the contract, rising to 27½% and 30% for each subsequent and similar period of service. 15% inducement allowance for expatriates and qualifying for any supplementation scheme. Reasonable rental for accommodation; family passages; education allowance; vacation and study leave. Detailed applications (2 copies) with curriculum vitae and names of three referees should be sent by 7th August, 1978 to the Assistant Registrar (Appointments), NUL, P.O. Roma, Lesotho, Africa. Applicants resident in the U.K. should also send a copy to the Inter-University Council, 90-91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

Oxford Centre for Management Studies
Two Fellowships
Marketing and Organisational Behaviour
Applications are invited for Fellowships in the Centre to commence early in 1979. Suitable candidates should have a special interest in one of the above subjects.
Fellows of the Centre are expected not only to have high academic or professional qualifications, but also the potential or proven ability to adapt themselves to a variety of teaching activities with Oxford University students and experienced managers.
Salary plus USS will be based on the Oxford University Lecturer Scale. The Marketing Fellowship could be a part-time appointment and the Organisational Behaviour Fellowship a temporary appointment in the first instance.

For further details write to the	Director, Oxford Centre for Management Studies, Kennington, Oxford OX1 5NY.

Closing date for applications 11th August, 1978.

THE UNIVERSITY OF LANCASTER
Applications are invited for a post as Teaching Fellow in the Institute for English Language Education. Applicants should possess a postgraduate qualification in Teaching English as a Foreign/Second Language OR English as a Mother Tongue, and desirably a postgraduate degree in Applied Linguistics with appropriate experience of teaching at secondary and higher education levels in the areas of the teaching of the description of modern English structure at the levels of discourse, syntax and phonology, and the teaching of Reading and Writing.
Valuable additional qualifications would include experience and an interest in:
(i) The coordination and teaching of English Language courses to students from overseas, and
(ii) The design and teaching of in-service teacher training courses.
The appointment will be a continuing one to begin from 1st October, 1978, or as soon as possible thereafter, at an appropriate point on the Other Related Scales Grades 1A/B (£3080-£5170, £5954-£7206). Further details may be obtained (quoting reference LEL/78) from the Establishment Officer, University House, Lancaster LA1 4YW, to whom applications (six copies), naming three referees, should be sent not later than 24th July, 1978.

UNIVERSITY OF NAIROBI KENYA
Applications are invited for the following posts in the INSTITUTE OF AFRICAN STUDIES:
RESEARCH FELLOWS (4 posts).
Must be specialized in one of the following areas:
(a) Material Culture.
Candidates should have at least one Postgraduate degree in the field of Ethnography. Preference will be given to those who have Museum experience as well. The appointee must display a high degree of knowledge of different types and purposes of items of African Material Culture.
(b) Musicology.
Candidates should have a Postgraduate degree in Musicology or Ethnomusicology. The appointee must be capable of continuing research on traditional African Music and dance. He/she will also be expected to organize Music and Dance Festivals.
(c) African Relief Systems.
Candidates should have a Ph.D. in Social Anthropology or Religious Studies. The appointee will be expected to conduct research on the Relief systems of the people of Kenya.
(d) Archaeology.
Candidates should have Ph.D. Must be specialized in the field of the Stone Age or the Late Stone Age or the Iron Age in Africa.
Salary: Range: (a) Range of personal £3,102 p.a. (KEI £3,102 p.a.) (KEI £1,438 allowance). Family passages; subsidized housing; PSSU or SSSF; non-contributory medical scheme. Detailed applications (2 copies), with curriculum vitae and naming 3 referees, to be sent to Registrar, University of Nairobi, PO Box 30197, Nairobi, Kenya, by August 7, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 90-91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

NEWCASTLE COLLEGE OF ADVANCED EDUCATION Australia
HEAD OF DEPARTMENT OF HOME SCIENCE/TEXTILES
Dr. E. Richardson, Principal of Newcastle College of Advanced Education, will be visiting the United Kingdom between 3rd July and 14th July. The College has recently advertised the position of Head of Department of Home Science/Textiles (Salary $A25,834) and Dr. Richardson would be pleased to meet any qualified person seeking additional information concerning the post. This is a tenured position. The original closing date for applications has now been extended to mid-August.
Letters for his attention should be addressed care of Mr. P. R. Hetherington, Assistant Secretary General, The Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF.

UNIVERSITY OF QUEENSLAND Australia
PROFESSOR OF ORAL SURGERY
The University invites applications for a new Chair of Oral Surgery within the Department of Dentistry.
Applicants must hold a primary degree in Dentistry and specialist qualifications in Oral Surgery, both registrable in Queensland. A higher academic qualification and a medical qualification registrable in Queensland would also be desirable.
Applicants should have had teaching experience in Oral Surgery at both undergraduate and postgraduate levels. They should have substantial clinical experience in the field of Oral Surgery and a strong research record. The appointee will be required to be registered as a dental and as a specialist oral surgeon in Queensland.
The starting salary for a Professor is $A31,381 per annum, plus a clinical loading of $A2,500 per annum. The University provides prescribed travelling and removal expenses, superannuation and housing assistance.
Additional information and application forms are obtainable from the Secretary General, Association of Commonwealth Universities (Appointments), 36 Gordon Square, London WC1H 0PF.
Applications close on August 31, 1978.

ABERYSTWYTH
THE UNIVERSITY COLLEGE OF WALES
DEPARTMENT OF MATHEMATICAL SCIENCES
Applications are invited for the following fixed-term posts, to start on 1st or 2nd October, 1978, or as soon as possible thereafter, at an appropriate point on the Other Related Scales Grades 1A/B (£3080-£5170, £5954-£7206).
Further details may be obtained (quoting reference LEL/78) from the Establishment Officer, University House, Lancaster LA1 4YW, to whom applications (six copies), naming three referees, should be sent not later than 24th July, 1978.

ABERYSTWYTH
THE UNIVERSITY COLLEGE OF WALES
DEPARTMENT OF CHEMISTRY
Applications are invited for the following fixed-term posts, to start on 1st or 2nd October, 1978, or as soon as possible thereafter, at an appropriate point on the Other Related Scales Grades 1A/B (£3080-£5170, £5954-£7206). Further details may be obtained (quoting reference LEL/78) from the Establishment Officer, University House, Lancaster LA1 4YW, to whom applications (six copies), naming three referees, should be sent not later than 24th July, 1978.

RESEARCH ASSISTANT
Applicants should have a good honours degree in chemistry or a chemistry diploma.
Salary: £[illegible] range, commencing £3,180 per annum (under review).

RESEARCH ASSOCIATE
Applicants should hold a Ph.D. in electron spectroscopy and/or surface chemistry.
Salary: 1A range, commencing £3,640 per annum (under review).
Both appointments will commence October 1, 1978 or as soon as possible thereafter.
Application forms and further particulars obtainable from the Registrar, to whom applications should be sent as soon as possible.

ABERYSTWYTH
THE UNIVERSITY COLLEGE OF WALES
DEPARTMENT OF ZOOLOGY
Applications are invited for a TEMPORARY LECTURESHIP IN IMMUNOLOGY, tenable from 1st October, 1978. Candidates should be qualified to present courses in the subject at the second year and honours levels.
Salary as appropriate point on Lecturer scale: £3,645 to £7,398 per annum.
Application forms and further particulars available from the Registrar, to whom applications should be sent as soon as possible.

FRANCE
UNIVERSITÉ DE LA SORBONNE NOUVELLE
DEPARTMENT OF ENGLISH LITERATURE
Maître de Conférences (Maître-Assistant) Award in ENGLISH LINGUISTICS (Ref. 1978/Ling 5/78)
Salary scale: 60,000 to 66,000 Fr. per annum.
Applications should be sent to the Director of the Department of English Studies, 19 rue des Bernardins, Paris Cedex, France.

Universities continued

NATIONAL UNIVERSITY OF LESOTHO

Applications are invited for the post of SENIOR LECTURER / LECTURER / ASSISTANT LECTURER in AFRICAN STUDIES. The African Studies programme involves the teaching of a compulsory foundation studies course in the social sciences and the humanities in first-year students in the Faculties of Humanities and Social Sciences. African geography, history, politics, economics, anthropology, sociology and thought are treated in an inter-disciplinary fashion in the year-long course. It is planned to expand the programme by offering other inter-disciplinary courses and higher levels with the appointment of an additional staff member. The appointee will be expected to assume duties as soon as possible. Salary scales: Senior Lecturer—R7473-R8413 p.a. Lecturer—R5493-R7527 p.a. Assistant Lecturer—R4572-R5022 p.a. (£1 sterling=R1.59.) The British Government may supplement salaries in range (1,644-£2,508 p.a. (sterling) for married appointees or £570-£960 p.a. (sterling) for single appointees. These rates are subject to the approval of the Government of Lesotho, are reviewed annually and are normally free of tax) and provide children's education allowances and holiday air fare passages. Non-contributory pension scheme for appointees on permanent terms of service. Appointees on short-contract terms receive 25% gratuity in lieu of superannuation for the first two years of the contract, rising to 27½% and 30% for each subsequent and similar period of service. 15% inducement allowance for expatriates not qualifying for any supplementation scheme. Resettlement allowance; accommodation; family passages; education allowance; vacation and study leave. Detailed applications (2 copies), with curriculum vitae, naming three referees, by August 7, 1978, to the Registrar (Appointments), NUL, Roma, Lesotho. Applicants resident in the UK should send a copy to the Inter-University Council for Higher Education Overseas, 90-91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

University of Wales

UWIST

APPLIED ECONOMICS TEMPORARY LECTURER

(Money, Banking and International Trade)

TUTORIAL ASSISTANT

(to work for PhD)
(Banking and Finance)

Salary:
Lecturer £3669-£7308
Tutorial Assistant £3189-£3425 : £3660

Requests (quoting Ref THES and post) for details and application form to Personnel Section (Academic), UWIST, Cardiff CF1 3NU.
Closing date 21 July, 1978.

BIRMINGHAM
THE UNIVERSITY
DEPARTMENT OF LINGUISTICS

Applications are invited for the post of LECTURER in LINGUISTICS from 1 October 1978 (or 1 January, 1979). The Lecturer will be expected to take a share in the general teaching of the Department of Linguistics, but should have special commitment and preferably be in phonology and phonetics with practical and field-work experience, if possible.

Salary on scale £3,600 to £7,308 (under review) plus superannuation.

Further particulars from Administrative Assistant (Academic), Linguistics, P.O. Box 363, Birmingham B15 2TT, to whom applications (10 copies) should be sent by 31st July, 1978, quoting ref. 3/78.

BRISTOL
THE UNIVERSITY

Applications are invited for the post of HEAD OF DEPARTMENT IN ENGINEERING SCIENCE.

Applications are invited for a RESEARCH ASSISTANT similar to that for three years from 1st October, 1978, to work on a three-year Science Research Council grant in the field of cutting fluids and their effect on tool failure. The project is directed by Dr. H. E. Trigger in close collaboration with leading cutting tool manufacturers, and is suitable for a higher degree registration.

Graduates in engineering, physics or applied mathematics, will be preferred and experience in optic (laser) methods or metal cutting would be an advantage, but applicants with other relevant qualifications and experience will be considered.

Initial salary in the range £3,189 to £3,660 under review plus superannuation, on National Research Range 1B.

Applications (three copies) quoting three referees should be sent by 30th July, 1978, to the Registrar and Secretary, Science Laboratories, Bristol BS8 1TH, Bristol BS1 5DL, from whom further particulars may be obtained.

INTERNATIONAL INDUSTRIAL MARKETING

The institute and of UMIST and the University of Bath are engaged on a major international research project in collaboration with other researchers at Universities and Business Schools in Sweden, France, Germany and Italy. The project has received substantial financial support from the SSRC and is concerned with institution and methodology of industrial marketing between the European countries.

SPECIAL RESEARCH ASSISTANTS

It is intended to fill two research posts, one at Bath and one at UMIST. Applicants should be graduates of either sex with a good honours degree together with awareness of and experience in research and/or industrial experience in foreign areas. Knowledge of another European language would be advantageous. There are undergraduate teaching commitments in addition to the research. Salary will be according to the qualifications and experience of the successful candidate on the scale £3,189 rising to £3,660 per annum under review.

Further particulars and application forms are available from the Deputy Academic Registrar, The University, Bath BA2 7AY, quoting reference A/501 and UMIST, Sackville Street, Manchester M60 1QD, quoting reference A/117/78. Closing date 14th July, 1978.

CARDIFF
UNIVERSITY COLLEGE

Applications are invited for the CHAIR OF PHYSICAL CHEMISTRY which will become vacant on 1st October 1978. The particular field of Physical Chemistry is specified because the Chairs were established (respective of precise specialities) from time to time within the Department.

Applications (two copies), together with the names and addresses of three referees, should be addressed to the Vice-Principal (Administration) and Registrar, University College, Cardiff CF1 1XL, by 31st July, 1978. Further particulars may be obtained. Closing date 30th September, 1978. Please quote reference 1/501.

DUNDEE
THE UNIVERSITY
DEPARTMENT OF EDUCATION

Applications are invited for TWO LECTURESHIPS IN EDUCATION

tenable from 1st September, 1978, or as soon as possible thereafter. Applicants should have special interests and qualifications in one or more of the following fields:

Educational Administration and Management.
Educational Research Methodology.
Sociology of Education.
Comparative Education.
Experience in Adult Education could be an advantage for one of the posts.

Initial salary of an appointee aged 30 or over: Lecturer £6,660 to £7,308 (Superannuation under USS). Great University research resources in Dundee.

Applications (six copies, overseas applicants one copy) quoting reference 87/82/78/11, and combining the names and addresses of three referees, should be lodged by 17th July, 1978, with the Secretary, The University, Dundee DD1 4HN.

BRADFORD
THE UNIVERSITY
PEACE STUDIES RESEARCH CENTRE FOR DEVELOPMENT FOUNDATION

RESEARCH FELLOW

to be attached member of a team for production of suitable case studies and other teaching material for use in courses on peace-keeping, peace-making and implementation. Three-year contract from October, within range £5,003 to £6,126 per annum.

Further particulars applicants lists etc to be received as soon as possible thereafter from the Registrar, Bradford University, Bradford, W. Yorks BD7 1DP.

CARDIFF
UNIVERSITY COLLEGE

Applications are invited for the CHAIR OF PHYSICAL CHEMISTRY which will become vacant on 1st October 1978. The particular field of Physical Chemistry is specified because the Chairs were established (respective of precise specialities) from time to time within the Department.

Applications (two copies), together with the names and addresses of three referees, should be addressed to the Vice-Principal (Administration) and Registrar, University College, Cardiff CF1 1XL, by 31st July, 1978. Further particulars may be obtained. Closing date 30th September, 1978. Please quote reference 1/501.

DUNDEE
THE UNIVERSITY
DEPARTMENT OF EDUCATION

LECTURESHIP IN LAW

Applications are invited for an additional International Lecturer in Law in the Twelve Law Department in this faculty of education. The successful candidate will be expected to undertake teaching and research within the field of Private Law. A qualification in Scots Law is desirable but not essential and candidates qualified in the Law of England or in other legal systems are also invited to apply.

Current Salary scale (due for revision in October 1978) £5,000 to £7,308. Initial placing according to qualifications and experience. Superannuation under USS. Great University research resources in Dundee.

Applications (six copies) containing the names of three referees to be lodged by 31st July, 1978, with the Secretary, The University, Dundee DD1 4HN. Inquiry letters should indicate why no acknowledgement (reference LE/1) is sent.

EDINBURGH
THE UNIVERSITY
CHAIR OF LOGIC AND METAPHYSICS

Applications are invited for the Chair of Logic and Metaphysics, the salary being £7,308 per annum. Prospective candidates may be asked to take a share in the general teaching of the Department of Philosophy, but should have special commitment and preferably be in phonology and phonetics with practical and field-work experience, if possible.

Further particulars may be obtained from the Secretary to the University Commission, Old College, Edinburgh, EH8 9YL, with whom applications (3 copies) should be lodged not later than 31st July, 1978, quoting reference 1/1/78.

LIVERPOOL
THE UNIVERSITY
DEPARTMENT OF MECHANICAL ENGINEERING
HYDRODYNAMICS

Applications are invited for a RESEARCH ASSISTANT to work on a three-year S.R.C. financed investigation into the stress produced in metal cutting tools and their effect on tool failure. The project is directed by Dr. E. Trigger in close collaboration with leading cutting tool manufacturers, and is suitable for a higher degree registration.

Graduates in engineering, physics or applied mathematics, will be preferred and experience in optic (laser) methods or metal cutting would be an advantage, but applicants with other relevant qualifications and experience will be considered.

Initial salary in the range £3,189 to £3,660 under review plus superannuation, on National Research Range 1B.

Applications (three copies) quoting three referees should be sent by 30th July, 1978, to the Registrar and Secretary, Science Laboratories, South Road, Durham DH1 3LE, from whom further particulars may be obtained.

LIVERPOOL
THE UNIVERSITY
DEPARTMENT OF PHONIATRICS AND GLOSSOLOGY

Applications are invited for a newly created post in the Department of Phoniatrics and Glossology. The division is concerned with teaching and research in the area of phonetics, speech and voice dynamics, gas dynamics and acoustics with particular application to internal combustion engines, diesel and spark ignition reciprocating flow turbomachinery and nuclear plant. Experience of modern medical instrumentation and measurement of unsteady flows would be an advantage.

Salary within the scale £5,660 to £7,308 per annum.

Application forms and further particulars may be obtained from the Registrar, The University, P.O. Box 147, Liverpool, L69 3BX, from whom further particulars may be obtained. Quote Reference HV 829.

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY

RESEARCH APPOINTMENTS IN THE DIVISION OF MATHEMATICS

Applications are invited from candidates of either sex for SERIAL RESEARCH ASSISTANTSHIPS required to work in the Mathematics Division upon as part of programmes in multiphase problems in fluid mechanics, oscillators and in theoretical quantum optics. Candidates for the inter-disciplinary problems in fluid mechanics should be applicants, physicists, scientists with mathematical training who have a background in linear or nonlinear optics, applied mathematics, linear physics, theoretical plasma physics or fluid dynamics.

Candidates for the quantum optics problem should have a good knowledge of quantum mechanics and in theoretical quantum optics. Candidates for the inter-disciplinary problems in fluid mechanics should be applicants, physicists, scientists with mathematical training who have a background in linear or nonlinear optics, applied mathematics, linear physics, theoretical plasma physics or fluid dynamics.

Candidates for the quantum optics problem should have a good knowledge of quantum mechanics and in theoretical quantum optics.

The appointment may be for up to two years, in the first instance. Salary will be on Range 1A (£3,660 to £4,394), initial appointment restricted up to £4,150 per annum.

Applications and enquiries to Professor H. K. Hughes, Department of Mathematics, UMIST, P.O. Box 88, Manchester, M60 1QD (Tel. 061-236 3311, extension 2160). Applications should include a full curriculum vitae and the names of three referees.

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
MECHANICAL ENGINEERING

LECTURER

Applications are invited from candidates of either sex for a post of Lecturer in the Division of Thermofluids and Fluid Mechanics of the Department of Mechanical Engineering. The division is concerned with teaching and research in the area of thermodynamics, gas dynamics and acoustics with particular application to internal combustion engines, diesel and spark ignition reciprocating flow turbomachinery and nuclear plant. Experience of modern medical instrumentation and measurement of unsteady flows would be an advantage.

Salary within the scale £5,660 to £7,308 per annum.

Application forms and further particulars may be obtained from the Registrar, The University, P.O. Box 147, Liverpool, L69 3BX, from whom further particulars may be obtained. Quote Ref HV 829.

LANCASTER
THE UNIVERSITY
ULTRA-SENSITIVE MECHANICAL MEASUREMENTS IN THE DEPARTMENT OF THE MECHANICAL ENGINEERING OF THE DEPARTMENT OF PHYSICS

Applications are invited for the post of RESEARCH ASSISTANT to work with the direction of Dr. J. Jones on control systems between states using continuous described in J. Phys. D.(A) 1977, 10, 1977. The work is linked to the research programme of A.E.R.E. (Harwell) on wear-resistance of implanted metals, and with work at the C.N.R.S. Laboratoire de Metallurgie des Surfaces, Meudon, Paris. The post is for three years and is funded by the Science Research Council. Applicants should preferably have experience in research involving lasers in metrology, or mechanical engineering. Salary scale £3,660 to £4,834.

Further particulars are available from the Personnel Officer, Lancaster University, Lancaster LA1 4YW, to whom applications (five copies), naming three referees, should be sent not later than 28 July 1978.

LONDON
THE CITY UNIVERSITY
DEPARTMENT OF MATHEMATICS

TEMPORARY LECTURER IN MATHEMATICS

Applications are invited for the above post, tenable for 1 year. Candidates should preferably have a Ph.D. degree with some publications concerned with the applications of differential equations to any one of the following fields: theoretical magnetohydrodynamics, the mechanics of solids, macromolecular compounds, previous teaching experience is desirable. Salary within the scale £3,660 to £7,308 per annum under review. Also £400 per annum London Allowance.

Further particulars and application forms are available from the Deputy Academic Registrar, The University, Northampton Square, London EC1V 0HB, quoting reference A/501 and 2/78/TEA. Closing date 14th July, 1978.

LONDON
THE UNIVERSITY
KING'S COLLEGE
DEPARTMENT OF GEOGRAPHY

LECTURESHIP

Applications are invited for a lectureship as a LECTURER in GEOGRAPHY in the DEPARTMENT OF GEOGRAPHY. Applicants should be competent in Quantitative Methods and should have special interest in Self Scheme.

Appointment will be made as soon as possible after 1st October 1978.

Salary scale £3,660 to £7,308 per annum plus London Allowance (superannuation contributions would be required).

Further details relate to the department's research and teaching, King's College, London WC2R 2LS.

Closing date for receipt of applications is 1st August, 1978.

RHODESIA
THE UNIVERSITY
SENIOR LECTURESHIP/LECTURESHIP IN LAW

Applications are invited for appointments as a Senior Lecturer or Lecturer in Law from qualified Attorneys, preferably with experience in international law.

Salary scales (Approximate sterling equivalents): Senior Lecturer: £6,477 - £8,097; Lecturer: £4,857 - £6,477 (subject to Government approval). Cinder £2,500 to £3,595.

Further particulars and application procedure are available from the Association of Commonwealth Universities, Tavistock House South, Tavistock Square, London WC1H 9HF.

Closing date: for receipt of applications 1st August.

British subject considering applying for this post should write in the first instance to consult the Secretary, Overseas Service Office (telephone 223 3134), 10 Spring Gardens, Whitehall, London SW1A 2BL.

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
MECHANICAL ENGINEERING

LECTURER

Applications are invited from candidates of either sex for an Lecturership in the Division of Thermofluids and Fluid Mechanics of the Department of Mechanical Engineering. The division is concerned with teaching and research in the area of thermodynamics, gas dynamics and acoustics with particular application to internal combustion engines, diesel and spark ignition reciprocating flow turbomachinery and nuclear plant. Experience of modern medical instrumentation and measurement of unsteady flows would be an advantage.

Salary within the scale £5,660 to £7,308 per annum.

Application forms and further particulars may be obtained from the Registrar, The University, P.O. Box 147, Liverpool, L69 3BX, from whom further particulars may be obtained. Quote Ref HV 829.

NEW ZEALAND
MASSEY UNIVERSITY
LECTURER IN STATISTICS

Applications are invited for the post of LECTURER IN STATISTICS in the DEPARTMENT OF MATHEMATICS AND STATISTICS.

The appointee will be expected to have good qualifications in mathematics, mathematical statistics or probability and have research interests in applied probability, stochastic processes or computational statistics. Duties include teaching undergraduate mathematics and statistics, postgraduate supervision and research.

Salary NZ$10,580 to $13,080.

Further details of the position, and of the University, together with conditions of appointment and information to be supplied by applicants, may be obtained from the Association of Commonwealth Universities (Appts.), Tavistock House South, Tavistock Square, London WC1H 9HF.

Applications close on 7th August, 1978.

NORTH WALES
UNIVERSITY COLLEGE
DEPARTMENT OF ECONOMICS

Applications are invited for the post of LECTURER in ECONOMICS from graduates with a Ph.D. in Applied Economics. Considerable research experience is desirable and the successful candidate will be expected to take an active part in the Research programme of the Department of Economics. Salary:

Salary will be on the scale £3,660 to £7,308 per annum.

An appointment may be made at Senior Lecturer level, for a post with a the Honorary post of Director of the Centre for Economic Research, in such an appointment it will be to the scale £7,670 to £8,730 per annum.

Applications (five copies) giving details of qualifications and experience, should be sent with the names and addresses of three referees, should be sent to Miss Eirlys Roberts, Registrar (Academic), University College of North Wales, Bangor, Gwynedd LL57 2DG, from whom further particulars may be obtained.

Closing date for applications: 17th July, 1978.

NEW ZEALAND
MASSEY UNIVERSITY
Palmerston North

LECTURER IN PSYCHOLOGY

Applications are invited for a position as LECTURER in the DEPARTMENT OF PSYCHOLOGY.

Applicants are invited for a position as LECTURER in the DEPARTMENT OF PSYCHOLOGY.

Applicants with interests and skills in any area of special psychology will be considered, preference will be given to candidates with additional skills in an applied area.

Salary Scale: NZ$10,580 to NZ$13,080.

Further details of the position, and of the University, together with conditions of appointment and information to be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, or the Registrar of the University.

Applications close on 7th August, 1978.

NEW ZEALAND
MASSEY UNIVERSITY
Palmerston North

SENIOR LECTURER / LECTURER IN BUSINESS MANAGEMENT

Applications are invited for a Senior Lecturer or Lecturer in Business Management. The appointee will be expected to teach and research in the Personnel Management programme of the Faculty of Business Studies. Applicants should have a postgraduate degree in Business Administration, Science, or a closely related field, and evidence of ability to contribute effectively to Personnel Management education.

The primary duties of the appointee will be concerned with the teaching of year 100 level undergraduate and postgraduate students enrolled in courses leading to Personnel Management qualifications. The appointee will also have supervisory responsibilities for a number of students at Masters and Honours Research courses.

Appointment will be made on the salary level in single Academic Salary Scale: Senior Lecturer NZ$13,080 to NZ$14,080; Lecturer NZ$10,580 to NZ$12,080.

Specific information on the Personnel Management programme may be obtained by writing to Professor J. Thomson, Dean, Faculty of Business Studies, P.O. Box 11-222, Palmerston North.

Further details of the position together with the conditions of appointment and information to be supplied by applicants, may be obtained from the Association of Commonwealth Universities (Appts.), Tavistock House South, Tavistock Square, London WC1H 9HF, or the Registrar of the University.

Applications close on 31st July, 1978.

PAPUA NEW GUINEA
UNIVERSITY OF TECHNOLOGY

PLANNING OFFICER

Applications are invited from suitably qualified persons for the above position.

Qualifications: A University degree, preferably in some branch of Science or Technology. A General knowledge of statistical methods and of mathematics. Experience of planning in some planning activity, preferably obtained in University administration, or academic work, and a genuine interest in the problems of universities in developing countries.

Duties: (1) To co-ordinate, on behalf of the University's Planning Committee, proposals for planning development and quality improvements in the academic and the Planning Committee for seeking and preparing statistics, briefs, working papers and other material required for planning purposes. (2) To act as secretary to the University's Planning Committee and to the Council. (3) To prepare detailed plans for University development and to form accountable to the University and Government, etc. to liaise on planning matters, on behalf of the University, and in particular to Planning Committee with the rank of Higher Education and other Government bodies as appropriate.

It is expected that the duties of the post will include the training of a national counterpart who will take over the job at the end of the contract period.

Salary: Clerk Class Range K13,920 by 9 to K17,637, K21,261 by 9 to K25,884, K31,221. Various allowances are payable in addition to salary and are also payable. The total contract package is under review but currently includes an overseas allowance K1,440 single, K2,880 married and child allowances, while serving forces and school fees may also be provided for children being educated away from their parents home. Other benefits include unpolluted, residential and free education fares and furniture loans, free medical, superannuation benefits and provision of a contract basis for two years.

Applicants should include particulars of age, nationality, marital status, family, qualifications, experience, and the names and addresses of three referees, should be sent to Mrs Lucy Ingham, Registrar (Academic), University of Papua New Guinea, Boroko, Papua New Guinea, from whom further particulars may be obtained.

Closing date for applications: 31st July, 1978.

THE OPEN UNIVERSITY
FACULTY OF MATHEMATICS

RESEARCH ASSISTANT

Consider close on (any time) been used at a well-defined yet complex area of artificial intelligence research, which recent work has concentrated on endowing it a sub-area in which the perceptual task in natural relatively successful machine-vision programs have proved particularly difficult.

A RESEARCH ASSISTANT is required to work on a project in this field entitled "Representation and refinement of knowledge for machine vision". The post will be based in Milton Keynes.

Candidates should have a first degree in a cognate field and a good working knowledge of at least one high-level computer programming language. The successful applicant will be encouraged to register for a higher degree.

Salary: Clerk Class Range K13,920 by 9 to K17,637, K21,261 by 9 to K25,884, K31,221. Various allowances are payable in addition to salary and are also payable. The total contract package is under review but currently includes an overseas allowance K1,440 single, K2,880 married and child allowances, while serving forces and school fees may also be provided for children being educated away from their parents home. Other benefits include unpolluted, residential and free education fares and furniture loans, free medical, superannuation benefits and provision of a contract basis for two years.

Applications should include particulars of age, nationality, marital status, family, qualifications, experience, and the names and addresses of three referees, should be sent to Mrs Lucy Ingham, Registrar (Academic), University of Papua New Guinea, Boroko, Papua New Guinea, from whom further particulars may be obtained.

Closing date for applications: 31st July, 1978.

YORK
THE UNIVERSITY
CHAIR OF POLITICS

Applications are invited for a Chair of Politics, tenable from October 1979, or earlier by arrangement, with the Department of Politics, University of York, Heslington, York YO1 5DD, from whom further particulars may be obtained. Closing date for applications: 1st September, 1978.

Universities continued

KEELE
THE UNIVERSITY
TREASURESHIP AND WORKSHOP OFFICER

Applications invited from candidates with relevant experience for post of TREASURER (Lecturer, Grade 1) and WORKSHOP OFFICER, Salary according to National Salary Scales for Administrative Staff at present £6,004 to £8,728 per annum. Appointee will reside on the University Estate.

Application forms and further particulars from the Registrar, Keele, Staffs ST5 5BG, to whom applications should be addressed by 31st August, 1978.

LIVERPOOL
THE UNIVERSITY
ASC RESEARCH PROJECT

Applicants are invited for the post of SENIOR RESEARCH ASSISTANT in the ASC RESEARCH PROJECT which is financed by the Science Research Council. Involves the theoretical investigation of a successful candidate will include the undergraduate teaching of the School.

The salary will be in the professional grades, and further particulars, together with forms of application, returnable by 31st July, 1978, can be obtained from the Staff Appointments Officer, The University, P.O. Box 147, Liverpool, L69 3BX, quoting Number 6/6.

Applications, together with the names of three referees, should be received not later than 28th July 1978 by the Registrar, The University, P.O. Box 147, Liverpool, L69 3BX, from whom further particulars may be obtained. Quote Ref. HV 829.

THE OPEN UNIVERSITY
FACULTY OF TECHNOLOGY

STAFF TUTOR
South-East Region

Applications are invited for a post of STAFF TUTOR in the Faculty of TECHNOLOGY, leading to a permanent appointment. Specialist areas are Design and Electronics, although applications will be considered in Aspects of Engineering Mechanics will also be considered.

Staff Tutors are concerned with internal aspects of the University teaching and tutorial work, tutor course, basic introductory courses, assistance to the Regional Director in the development, training and supervision of tutors and other staff, tuition in study centres and teaching at residential summer schools as required. There is also a commitment to assist in eventing work and travel.

The successful candidate will be required to live within the city but will be based in the Regional Office at Paul Hasluck House and will be expected to undertake duties in the relevant Regional Director.

Applicants should be honours graduates and should have high proficiency in teaching, preferably in a university, and have a good knowledge of the University's aims and methods.

Salary: £3,660 to £7,308 per annum, plus superannuation.

Further details of the position, together with the conditions of appointment and information to be supplied by applicants, may be obtained from the Association of Commonwealth Universities (Appts.), Tavistock House South, Tavistock Square, London WC1H 9HF, or the Registrar of the University.

Applications close on 31st July, 1978.

THE OPEN UNIVERSITY
FACULTY OF EDUCATIONAL STUDIES

Applications are invited for a lectureship in the Department of Educational Studies. The faculty have strong interests in curriculum and evaluation, particularly with reference to the school curriculum. Preference will also be given to candidates with additional skills in an applied area.

Salary Scale: £3,660 to £7,308 per annum.

Further details of the position, and of the University, together with conditions of appointment and information to be supplied by applicants, may be obtained from the Association of Commonwealth Universities (Appts.), Tavistock House South, Tavistock Square, London WC1H 9HF, or the Registrar of the University.

Applications close on 7th August, 1978.

READING
THE UNIVERSITY
LECTURESHIP IN AGRICULTURAL BOTANY

Applications are invited for the post of Lecturer in Agricultural Botany. It is intended to recruit an English with interests in the Ecology of Arable Weeds. Postgraduate experience in Weed Ecology is desirable. Applicants should have a good honours degree in Physics, Mathematics, Electrical or Mechanical Engineering and preferably research experience in Physics or Electronic Materials.

Initial salary according to qualifications and experience in range £3,189 to £3,660 a year on scale rising to £3,425 a year under review.

Further particulars from the Registrar and Secretary, The University, Reading, Berkshire, Shinfield Park, Reading RG2 5AQ, to whom applications (six copies) should be sent by 31st July, 17 July. Please quote reference B.1.35. Dl.

THE OPEN UNIVERSITY
FACULTY OF EDUCATIONAL STUDIES

THREE-YEAR FELLOWSHIP

LECTURESHIP

Applications are invited for the new post of LECTURER in the Department of EDUCATIONAL HISTORY.

The appointment, which will date from October 1978, will be made on the Lecturer's Scale up to £3,661 per annum, subject to the USS/TIAA benefits.

Closing date for applications: Wednesday, July 19, 1978.

LECTURER

Applications are invited for the post of LECTURER in the Department of DYLAN THOMAS STUDIES in the field of literature and/or drama, with specialisation preferable in twentieth century.

The appointment, which will be at the Lecturer Grade, will date from October 1978 or January 1979.

Further particulars from the Registrar, Swansea, Singleton Park, Swansea SA2 8PP, to whom applications should be returned by the above dates.

Fellowships and Studentships

PLYMOUTH POLYTECHNIC
School of Engineering Science

RESEARCH ASSISTANT OR POST DOCTORAL RESEARCH FELLOW PERFORMANCE OF ANCIENT BRIDGES

Applications are invited from suitably qualified Civil or Mechanical Engineers for industially sponsored research on the use of limited-induced vibrations for assessing the performance of ancient bridges.

The post offers a good opportunity to become established in the important and rapidly expanding field of bridge maintenance.

Appointments are for a period of two years, with a possibility of a third year (Road form consultancy).

Starting salary will be £3,162 or £3,489 for Assistants or £4,398 for Fellows with annual increments of £138.

Please apply by July 21, 1978. Application forms and further particulars from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA.

ANDREW FRASER FOUNDATION

GRADUATE STUDENTSHIP IN FLUID POWER

Tenable for a one year M.Sc. course in Fluid Power Design or Fluid Power Technology at the University of Bath.

Graduates in Engineering, Physical Sciences or Mathematics are invited to apply for the above studentship in the first instance to:

Professor D. E. Bowns, School of Engineering, University of Bath, Claverton Down, Bath BA2 7AY

The award will provide fees and appropriate assistance during the year.

Personal

POSTALOANS UNSECURED
£500 to £5,000
RICHMOND INVESTMENTS LTD.
4 The Green, Richmond, Surrey. 01-940 9845/2937 (24 hrs.)

PERSON in late 50s/early sixties home in Bedfordshire (on Great Northern Railway line to London) to share home. Congenial companionship, smoker but not essential.—0462 83291.

Polytechnics

Site Officers

PO1: £5,797-£6,382 p.a. inc.

+ Phase III salary award, payable from July 1

Site Officers have local management responsibility for the operation and control of each of the Polytechnic's six major teaching and administrative locations in north London.

Responsibilities include the control of buildings and equipment allocation of accommodation within the Site, determination of maintenance priorities, management of site caretaking, maintenance and other staff, and control of site funds.

Extensive experience in cleaning, office or workshop management is expected and this should have involved major responsibilities for the control of staff and other resources. Experience in the operation of an educational establishment would be an advantage.

Please write for full details and an application form, posting first class to: Appointments Officer (Ref. 218.124), Middlesex Polytechnic, Bounds Green Road, London N11 2ND. Closing date July 17

Middlesex Polytechnic

NORTH STAFFORDSHIRE POLYTECHNIC
College Road, Stoke on Trent
DEPARTMENT OF GEOGRAPHY AND SOCIOLOGY

RESEARCH ASSISTANT IN GEOGRAPHY

Applications are invited from suitably qualified graduates (male/female) for an Research Assistant in either

(i) Historical Geography or
(ii) Industrial Development in Marginal Rural Areas

The appointment will be initially for two years and the successful applicant normally be expected to register for a higher degree (M.Phil) on a part time basis.

The appointment will be initially for two years and the successful applicant normally be expected to register for a higher degree (M.Phil) on a part time basis.

Salary: £3,189-£3,747 inclusive of supplements.

Please enclose large s.a.e. for further particulars and application form available from:—

The Personnel Officer
The Polytechnic of Wales
PONTYPRIDD
Mid Glamorgan
Tel. No. (0443) 405133
Closing date: 31.7.78

The Polytechnic of Wales
Pollitechnig Cymru

Applications are invited for the post of:—

RESEARCH ASSISTANT
DEPARTMENT OF SOCIAL STUDIES

Candidates should have a good first degree in History with a specialism in either Modern American or British History.

Salary—£3,189-£3,747 inclusive of supplements.

Please enclose large s.a.e. for further particulars and application form available from:—

The Personnel Officer
The Polytechnic of Wales
PONTYPRIDD
Mid Glamorgan
Tel. No. (0443) 405133
Closing date: 31.7.78

PLYMOUTH POLYTECHNIC
School of Mathematical Sciences

LECTURER II STATISTICS

Applicants for this post should have a good honours degree with industrial and/or post-graduate experience in Statistics. A knowledge of Operational Research could be an advantage.

School of Management & Business Studies

SENIOR LECTURER OR LECTURER II ECONOMICS

A good teaching and research background required. Specialist interest preferred in applied micro-economics including environmental, fisheries and industrial topics.

Salary:
SL—£6891-£7872
LII—£4161-£5556

Application forms, to be returned by 24th July, 1978, can be obtained with further particulars from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA.

THE POLYTECHNIC OF WALES
Pollitechnig Cymru

Applications are invited for the post of:—

DEPARTMENT OF URBAN ESTATE MANAGEMENT AND QUANTITY SURVEYING

LECTURER II/ SENIOR LECTURER—VALUATION/ ESTATE MANAGEMENT

Applicants who will be considered from all age groups must be Corporate Members of R.I.C.S. (General Practice Division) and should hold sound professional experience.

A degree and/or teaching experience would be an advantage.

Salary: £4,161-£7,669 (Ref. 27/78 inclusive of Salary Supplements.

Application form and further particulars available from:

The Personnel Officer,
The Polytechnic of Wales,
PONTYPRIDD, Mid Glamorgan
Tel. No. 443133
Closing date: 30th July 1978.

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF SURVEYING

LECTURER II (SENIOR LECTURER)

To be responsible for the teaching of Valuation and Estate Management to Architecture and Surveying students.

Applicants should hold a good degree in Law and preferably a Higher Degree in Valuation. Previous experience in Valuation and Estate Management.

Applicants should hold a good degree in Law and preferably a Higher Degree in Valuation. Previous experience in Valuation and Estate Management.

Salary: Lecturer II £4,161 to £5,556 p.a. (S.L. £6,891 to £7,872 inclusive of Salary Supplements.

Application form and further particulars available from:

The Personnel Officer, The Polytechnic, Liverpool, L3 3AF.

Please quote reference LP. 1/78.

Closing date to receive applications: 31st July, 1978.

BRADFORD
THE UNIVERSITY
BSC HI-SEARCH STUDENTSHIP IN MECHANICAL AND MANUFACTURING SYSTEMS ENGINEERING

Applications are invited from graduates in mechanical or production engineering to undertake research and supervise methods of forming long cylindrical shells from sheet metal.

For candidates with one year's industrial experience there is an opportunity of combining an industrial placement with a salary in the region of £3,000 per annum.

Application forms and further particulars from the Secretary, Postgraduate School of Mechanical and Manufacturing Systems Engineering, University of Bradford, BD7 1DP. Ref. 88/387/TH.

BRISTOL
THE UNIVERSITY
DEPARTMENT OF MECHANICAL ENGINEERING

Applications are invited for a SERC STUDENTSHIP involving work on impact loading of Adhesive Bonded Aluminium Joints. The work will involve collaboration with British Leyland Cars Limited, candidates should have a good honours degree and some experience of Engineering Mechanics would be an advantage. The value of the award is presently £1,475 per annum but is currently under review.

Further information may be obtained from Dr. R. D. Adams or Dr. W. C. Spelman, Department of Mechanical Engineering, University of Bristol, Queen's Building, University Walk, Bristol BS8 1TR.

EXETER
THE UNIVERSITY
S.R.C. POSTGRADUATE STUDENTSHIPS IN SURVEYING

Studentships are available for work in the fields of Soil Mechanics, Photogrammetry, Photogeodesy, Geodesy and Theoretical Surveying.

Details may be obtained from Professor J. Flavin, Chairman of Surveying, University of Exeter, Exeter EX4 4QF.

Applications not later than 14th July 1978.

LEEDS
THE UNIVERSITY
DEPARTMENT OF PLANT SCIENCES

A.R.I.C. (C.A.R.) studentship in conjunction with International Harvest Limited is available for three years from October 1978 for a good Honours Graduate in Agriculture, Botany, Microbiology or Biochemistry. The studentship involves research of the biological control of stalk borers in relation to the problem of lodging.

Applications with the names of two academic referees to Dr. Ian Nye, Department of Plant Sciences, The University, Leeds LS2 9JT as soon as possible.

PAISLEY
PAISLEY COLLEGE
DEPARTMENT OF MATHEMATICS AND COMPUTING

RESEARCH STUDENTSHIP

Applications are invited from candidates who wish to undertake research for a higher degree (M.Phil/Ph.D.) commencing in September 1978. Applicants should possess a combined honours degree in Mathematics or a related discipline.

The research topics include the control of buildings and equipment allocation of accommodation within the Site, determination of maintenance priorities, management of site caretaking, maintenance and other staff, and control of site funds.

Extensive experience in cleaning, office or workshop management is expected and this should have involved major responsibilities for the control of staff and other resources. Experience in the operation of an educational establishment would be an advantage.

Please write for full details and an application form, posting first class to: Appointments Officer (Ref. 218.124), Middlesex Polytechnic, Bounds Green Road, London N11 2ND. Closing date July 17

Middlesex Polytechnic

YORK
THE UNIVERSITY
DEPARTMENT OF EDUCATION

RESEARCH FELLOWSHIP

Applications are invited for a research fellowship in the field of Education, tenable from October 1978. The Research Fellow will be expected to register for a higher degree in this department. The research fellow will be responsible to discuss with the director of the research programme and be responsible for the day-to-day management of staff on their research.

The starting salary will be within the range £4,161-£5,189 to £6,001.

Six copies of applications including a curriculum vitae (one from overseas candidates) and names of three referees should be sent to Mr. Peter Hall, Registrar, The University, York, Heslington, York YO1 5DD, from whom further particulars may be obtained. Please quote reference 6/1074.

WALES
THE UNIVERSITY
UNIVERSITY COLLEGE OF SWANSEA

LECTURER

Applications are invited for the post of LECTURER in the Department of GEOGRAPHY.

The appointment, which will date from October 1978, will be made on the Lecturer's Scale up to £3,661 per annum, subject to the USS/TIAA benefits.

Closing date for applications: Wednesday, July 19, 1978.

LECTURER

Applications are invited for the post of LECTURER in the Department of DYLAN THOMAS STUDIES in the field of literature and/or drama, with specialisation preferable in twentieth century.

The appointment, which will be at the Lecturer Grade, will date from October 1978 or January 1979.

Further particulars from the Registrar and Secretary, The University, Swansea, Singleton Park, Swansea SA2 8PP, to whom applications should be returned by the above dates.

SHEFFIELD
THE UNIVERSITY
CAREERS ADVISORS

SERVICE

Applications are invited from men and women graduates for the post of Administrative Assistant (Intermediate) in the Careers Advisory Service, from 1 August 1978, or as soon as possible thereafter. Candidates should have a strong interest in the storage, dissemination and use of careers information material, and experience which would be of value in making or supporting such work in the Careers Advisory Service.

Initial salary according to qualifications and experience in range £3,189 to £3,747 a year on scale rising to £3,928 a year under review.

Further particulars from the

Polytechnics continued

CITY OF BIRMINGHAM
THE POLYTECHNIC
DEPARTMENT OF EDUCATIONAL STUDIES
RESEARCH FELLOW

Applications are invited for a fulltime appointment to be part of a research team completing investigations into motor development in young children.

The main areas of work will be:

(a) the diagnosis of underachievement in motor skills (including work with a newly developed motor test);
The practical work with clumsy children;

(c) the design of apparatus for children with motor problems;
(d) investigation into diagnostic utilities of non-verbal communication in children with or without motor problems.

The post will be particularly suitable for well qualified candidates with research, diagnostic or teaching experience related to the motor behaviour of normal children or those with handicaps.

The appointment is for one year at a salary of £4,391.

Research Fellows may be expected to take up to six hours teaching per week during the academic year.

Further details and application form from: Mr. G. Clark (Bursar), Centre for Advanced Studies in Education, 2 Cornish Road, Edgbaston, Birmingham, West Midlands. Telephone: 021-455 0732.

CITY OF BIRMINGHAM
THE POLYTECHNIC
Department of Government and Economics

LECTURER II IN ECONOMICS

Full-time or professional and degree courses, mainly in intermediate and A-level subjects and research interests.

Half-time
LECTURER II IN GOVERNMENT

To teach on degree and professional courses in the field of Local and Central Government. Applicants should indicate also specialist subject and research interests.

Salary Scale: Lecturer II: £4,302 to £6,501 (or appropriate proportions).

Further details and application forms to be returned by 21st July, 1978 from: The Personnel Officer (LT/HE), City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU.

CITY OF BIRMINGHAM
THE POLYTECHNIC
HEAD OF SCHOOL
ANSTEY SCHOOL OF PHYSICAL EDUCATION

Applications are invited from suitably qualified men and women for the post of Head of the Anstey School of Physical Education which will form part of the reformed undergraduate Department of Teacher Education and Training.

Appointment will be on the Principal Lecturer Grade.
Salary Scale: £5,037 to £7,401 (Ref. £6,844).

Further details and application form (to be returned by 21st July, 1978) from: The Personnel Officer (LT/HE), City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU.

LANCHESTER
THE POLYTECHNIC
COVENTRY
FACULTY OF SOCIAL SCIENCE
HEAD OF DEPARTMENT (Grade VI)
BUSINESS STUDIES

(Salary within the range £9,432 to £10,503 per annum)

A strong and enterprising Head is sought with the vision to lead the Department into the next decade, building upon the existing strong foundations laid in the recent and extremely well-established degree in Business Studies and Economics. The successful candidate will be expected to contribute to the Faculty education policy, including seven sixteen teaching hours in both business and non-business areas, to develop consultancy links with research units in related disciplines.

Application forms and further particulars may be obtained from the Director, Lanchester Polytechnic, Priory Street, Coventry, CV1 2HF (quoting ref. 78/1) to be returned by 24th July, 1978.

COVENTRY
LANCHESTER POLYTECHNIC
FACULTY OF ENGINEERING
TEMPORARY LECTURESHIPS

(Ranging for appointment as Lecturer II or Principal Lecturer Grade)
Post 1 TEMPORARY LECTURER IN ELECTRICAL ENGINEERING.
Post 2 TEMPORARY LECTURER IN RUBBER PRODUCTS ENGINEERING, MECHANICAL ENGINEERING, MECHANICAL and ELECTRONIC ENGINEERING, (BT), or CIVIL ENGINEERING to join a multi-disciplinary team supporting combined engineering studies.

Post 3 TEMPORARY LECTURER IN MECHANICAL ENGINEERING

Salary for the above posts: Lecturer Grade II: £4,302 to approx £6,501 per annum. Lecturer Principal Lecturer Grade: £5,037 to approx £7,401 per annum.

For application forms and further particulars please send a stamped addressed envelope to the Personnel Officer, Lanchester Polytechnic, Gosford Street, Coventry CV1 5FB. Closing date: 21st July, 1978.

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF BIOLOGY
LECTURER II IN PLANT PATHOLOGY

Applicants should possess first and higher degrees in Biological Sciences. The successful candidate will be expected to teach to Honours degree level and to undertake research studies. Special considerations will be given to candidates with interests in the areas of disease control and/or the ecology of phytopathogens.

Salary scale: £3,101 to £6,558 p.a.

Application forms and further particulars are available from the Personnel Officer, Liverpool Polytechnic, Tithebarn Street, Liverpool, Merseyside, L2 2ER. Tel. 051-231 3235.

Please quote reference LP/107

Closing date is fourteen days from the appearance of this advertisement.

LONDON, W.1
POLYTECHNIC OF CENTRAL LONDON

Temporary post (for one year commencing 1st September, 1978) of SENIOR LECTURER, THEATRE (Lighting Design).

The successful candidate will be responsible for the Lighting Design Course in the Theatre Department leading to the B.A. (Hons) in Theatre Studies.

Salary on the Lecturer II scale: £4,101-£6,558 plus Outer London Allowance.

Application form and further particulars from the Establishment Officer, Polytechnic of Central London, 309 Regent Street, London, W1B 2AL. (Quote Ref. 2142). Closing date: 14th July, 1978.

LONDON
THAMES POLYTECHNIC
ASSISTANT HEADSHIP (PART-TIME)

Applications are invited for the post of Assistant Registrar to be in charge of academic administration on the Woolwich site and to be Faculty Secretary to the Faculty of Education and Social Studies. Applicants should possess good academic qualifications and should have had appropriate experience in the field of further or higher education.

Salary Scale: £3,432 to £3,930, inclusive of London Award (under review).

Further particulars and form of application may be obtained from the Staffing Officer, Thames Polytechnic, Wellington Street, London SE18 6PF to whom completed applications should be returned by 20th July, 1978.

LONDON
THAMES POLYTECHNIC
DIVISION OF ECONOMICS
RESEARCH ASSISTANT

Applications are invited from honours graduates for a post of Research Assistant in the Division of Economics. The successful candidate will register for a higher degree, preferably the M.Phil. or Ph.D. Salary scale: £2,778 plus £158 to £3,013 per annum.

Further particulars and an application form may be obtained from the Staffing Officer, Thames Polytechnic, Wellington Street, London SE18 6PF, to whom completed applications should be returned by 25 July, 1978.

LONDON
THAMES POLYTECHNIC
SCHOOL OF SOCIAL SCIENCES
TEMPORARY LECTURER II IN LINGUISTICS

The Polytechnic seeks to appoint a Temporary Lecturer Grade II in the Division of Linguistics from 1 September, 1978, or as soon as possible thereafter. The post is for a maternity cover lasting one year.

Salary Scale: £4,302 to £6,501 gross inclusive.

Further particulars and form of application may be obtained from the Staffing Officer, Thames Polytechnic, Wellington Street, London SE18 6PF, to whom completed applications should be returned by 25 July, 1978.

SUNDERLAND
THE POLYTECHNIC
FACULTY OF SCIENCE
DEPARTMENT OF MATHS AND COMPUTER STUDIES

RESEARCH ASSISTANTSHIP IN MATHEMATICAL MODELLING OF HUMAN THERMOREGULATION

Ref. SCI 41

The successful candidate will join a young team using finite element and optimisation techniques to model heat flow within and from the human body.

The post is suitable for persons with good Honours degree which has a substantial mathematical content. The successful candidate must register for a C.N.A.A. Research Degree of M.Phil./Ph.D.

The salary scale for Research Assistants is £2,778, plus £158 by 2 to £3,084 per annum.

RESEARCH ASSISTANT.
(Ref. SCI. 2)

MATHEMATICAL MODELLING OF BIOLOGICAL SYSTEMS

Duties relate to improving and extending existing concepts in the control of blood sugar level in the body. It is anticipated that the project will involve some collaboration with a drug manufacturer.

The post is suitable for persons with an honours degree qualification which has a substantial mathematical content. The successful applicant will be expected to register for a M.Phil./Ph.D. research degree.

The salary scale for Research Assistants is £2,778, plus £158 by 2 to £3,084 per annum.

Further particulars and an application form may be obtained from the Personnel Officer, Sunderland Polytechnic, Chester Road, Sunderland, and should be returned as soon as possible.

SALFORD
THE UNIVERSITY
DEPARTMENT OF SOCIOLOGICAL AND POLITICAL STUDIES

PART-TIME
M.Sc. IN SOCIOLOGY BY ADVANCED STUDY

A new M.Sc. in Sociology, which touches in Sociological Analysis and Sociology and Social Policy, designed especially for part-time students will begin in October, 1978. Teaching will take place on Mondays and the minimum three years required to complete the degree is two one-year commencing 1st September, 1978.

The minimum entry requirement is a lower second class degree in Sociology or Social Policy (preferably with an upper second) or qualifications in social work or social administration.

Further details and application forms available from Dr. J. G. A. Hirst, Course Tutor for the M.Sc. in Sociology, Department of Salford, Salford M5 4WT.

NEWCASTLE UPON TYNE
THE POLYTECHNIC
DEPARTMENT OF SOCIAL WORK STUDIES
TEMPORARY LECTURER II IN SOCIAL WORK

Applications are invited for a temporary lecturer in Social Work with particular interests in Sociology and Mondays and the minimum time required to complete the degree is two one-year commencing 1st September, 1978.

Minimum L.C.I., Lecturer II: £4,302 to £6,501 per annum.

For further particulars and an application form, returnable by Thursday, 20th July, 1978, please send a stamped addressed envelope to the Staffing Officer, Newcastle Polytechnic, Coach House, Coach Lane, Newcastle upon Tyne, NE7 7RU.

THE CITY OF LIVERPOOL
COLLEGE OF HIGHER EDUCATION
(formerly C. F. Mott and Edge Hill College) and An Associate College of the University of Lancaster

Applications are invited for the following posts. Applicants should possess a good Honours degree or appropriate professional qualification. Possession of a higher degree, evidence of research and publication or of substantial industrial experience is also desirable.

DIVISION OF ART AND DESIGN STUDIES

LECTURER II IN TEXTILES

To be responsible to the Division Head for the location of Textiles Foundation the Department of Fashion Fashion Marketing with Lighting Photography. Some knowledge of weaving would be an advantage.

DIVISION OF PROFESSIONAL AND FURTHER EDUCATION

LECTURER II IN THE EDUCATION OF THE HANDICAPPED

The successful candidate will probably be a qualified teacher with experience of teaching children with learning difficulties, and will be expected to be the teaching of initial and inservice H.E.D. (Ordinary and Honours courses).

LECTURER II (PART-TIME)

Initially the successful candidate will probably teach some while range of Finishes, Furniture and Textiles (Ordinary and Honours courses), but there are likely to be opportunities for assisting other staff in the B.A. (Honours) programme. Liaison with the Fine Art Department will be run in conjunction with the Design Department.

These appointments will date from 1st September, 1978, or as soon thereafter as possible.

Salary: Lecturer Grade II: £4,302 to £6,501. Part-time Lecturer Scale: £1,075 (bar) to £2,250.

Application forms and further details can be obtained from the Principal, to whom completed application forms should be returned not later than 21st July, 1978. It is hoped to hold interviews in the last week in July.

Colleges and Institutes of Higher Education

Hull College of Higher Education
FACULTY OF ADMINISTRATIVE AND MANAGEMENT STUDIES
School of Business and Management Studies

Applications are invited for the post of

LECTURER GRADE I IN INDUSTRIAL RELATIONS

to teach initially on T.U.C. Courses for Shop Stewards. The post is tenable from 1st September, 1978, or as soon as possible thereafter.

Application forms and further details may be obtained from the address below, to which completed forms should be returned within 10 days of the advertisement appearing.

The Personnel Section
Hull College of Higher Education
Cottingham Road, Hull HU6 7RT.
Tel (0482) 41451

ROEHAMPTON INSTITUTE OF HIGHER EDUCATION
A federation of Digby Stuart, Froebel Southlands and Whitelands Colleges

Applications are invited for a one-year temporary post, which may be either full-time or part-time, as a Lecturer in Music. The person appointed should have particular interests in 20th-Century Music, and in teaching practical and/or written musicianship. An interest in contemporary music education would also be a recommendation. Salary scale will be dependent on age and experience, but is expected to be within the Lecturer I scale (£3192 to £5334+£402 London Weighting).

Further details and application forms from: The Academic Registrar, Roehampton Institute of Higher Education, Roehampton Lane, London SW15 5PJ.

Closing date for receipt of applications: Monday, 17 July, 1978.

HAMPSHIRE
SOUTHAMPTON COLLEGE OF HIGHER EDUCATION

LII/SL in ART and DESIGN HISTORY

Applications are invited for the above post to lecture on present Diploma Courses and a Degree Course in English and American Studies. Salary Scale £4,101-£7,572.

PL in GRAPHIC DESIGN

Applications are invited for the above post to lecture on the present SIAD Diploma Courses and to help prepare proposals for a Degree Course. Salary Scale Principal Lecturer, £7,047-£7,818 (bar)-£8,844.

Application forms and further details from the Principal, Southampton College of Higher Education, East Park Terrace, Southampton SO9 4WW (please include a stamped addressed A4 envelope), to whom they should be returned within 14 days of the appearance of this advertisement.

WINCHESTER
KING ALFRED'S COLLEGE OF HIGHER EDUCATION

LECTURER/SENIOR LECTURER IN SPECIAL EDUCATION

Applications are invited for the post of LECTURER/SENIOR LECTURER IN SPECIAL EDUCATION. Experience of E.S.N.(M) work preferable with good academic qualifications. This appointment will be for a three-year period subject to review.

Further particulars may be obtained from the Principal, King Alfred's College, Winchester SO22 4NR.

Closing date for applications is July 17, 1978.

EVERY WEEK
The TIMES is read by over 75,000 academic teaching staff at universities, polytechnics, and colleges of education throughout the UK.

If you have an announcement to make to the academic community, there is no more effective or cheaper way than through the pages of the TIMES. For more information contact John Lodbrook, Advertisement Manager, on 01-837 1234.

The Times Higher Education Supplement

Colleges and Institutes of Technology

SCOTLAND
PAISLEY COLLEGE OF TECHNOLOGY
COMPUTER CENTRE

Applications are invited from persons with considerable experience in the [illegible] and provision of a service [illegible] Applicants should possess a first degree and have [illegible] the senior posts [illegible]

THE DIRECTOR
Salary £10,650
with overall responsibility for the Computer Centre

the ASSISTANT DIRECTOR (SERVICES)
Salary £7,155 to £8,[illegible]
with responsibility for [illegible] and will normally serve [illegible] for up to [illegible] College Administration [illegible]

The successful candidate will be responsible [illegible] for the development of computer services [illegible]

Further particulars [illegible] Registrar, Paisley College of Technology, Abbey Street, Paisley PA1 2JE [illegible] Telephone 041-887 0812.

Closing date for receipt of applications: [illegible] 1978.

THES 7/7/78

SALFORD
COLLEGE OF TECHNOLOGY
Frederick Road Campus
Salford
Phone: 061-736 [illegible]

STUDENT COUNSELLOR
Salary £[illegible]

Candidates must be qualified and have [illegible] to work with students [illegible] a wide range of [illegible] requirements.

Letters of application to: Vice-Principal.

Research

Amnesty International
requires

Researcher for their London-based Secretariat, to work in Asia Department. To investigate human rights situations and national cases in United Nations. Work includes preparing biographies, background reports, briefing missions and formulating policy.

Principal requirements: specialist knowledge of at least of the United Chinese countries; background in related subjects and ability to analyse the political judgment; fluency in French and least one Indo-Chinese language.

Salary circa £1,700 per annum. Closing date: July 31, 1978.

Application form and further details from: 10 Southampton Street, London WC2E 7HF, or phone 01-836 7788, extension 7.

Administration

TECHNICIAN EDUCATION COUNCIL
EXTERNAL MODERATORS

The Council invites applications from suitably qualified and experienced people for consideration for appointment as part-time external moderators. The moderators have a key role in the establishment and maintenance of standards for the Council's awards, monitoring the operation and assessment arrangements of TEC programmes.

The aim is to extend the register of people willing to act as moderators so that appointments can be made for programmes starting in September, 1978, and should have relevant current experience.

Applications are particularly invited for the following awards/programmes:

CERTIFICATE/DIPLOMA
A6 (Cost Metals/Fabrication and Welding/Metallurgy);
A8 (Motor Vehicle Repair/Vehicle Body Engineering);
B3 (Building Engineering Services/Gas Services);
C1/C2/C5 (Sciences); C5 (Ceramics); C7 (Textiles Clothing/Colouration).

HIGHER CERTIFICATE/HIGHER DIPLOMA
A1 (General Engineering); A2 (Electronics and Communication Engineering); A3 (Electrical Engineering);
A4 (Plant Engineering and Instrumentation);
A5 (Mechanical and Production Engineering);
A6 (Cost Metals/Fabrication and Welding/Metallurgy);
B2 (Building); B4 (Civil Engineering/Structural Engineering); C5 (Polymer Technology); C7 (Textiles).

Further details of the above posts and application forms for the part-time posts can be obtained by writing to the Council (Moderator Section), 76 Portland Place, London W1N 4AA.

Closing date for applications September 15, 1978.

Administration continued

CITY OF LONDON
THE POLYTECHNIC
ADMINISTRATIVE OFFICER

An Administrative Officer is required to help run the Polytechnic's busy Registry Office at Moorgate. [illegible] provision of a service [illegible] Applicants should possess a first degree and have [illegible] the senior posts [illegible]

THE DIRECTOR
Salary £10,650
with overall responsibility for the Computer Centre

the ASSISTANT DIRECTOR (SERVICES)
Salary £7,155 to £8,[illegible]
with responsibility for [illegible] and will normally serve [illegible] for up to [illegible] College Administration [illegible]

The successful candidate will be responsible [illegible] for the development of computer services [illegible]

Further particulars [illegible] Registrar, Paisley College of Technology, Abbey Street, Paisley PA1 2JE [illegible] Telephone 041-887 0812.

Closing date for receipt of applications: [illegible] 1978.

THES 7/7/78

Colleges and Institutes of Technology continued

COUNTY OF AVON
CITY OF BATH
TECHNICAL COLLEGE

Applications are invited for the post of

PRINCIPAL

of the City of Bath Technical College (Group 6) to take up duties on 1st January, 1979.

Salary within the range £11,547-£12,105.

Application forms, to be returned by 28th July, and further particulars are available from the Clerk to the Governors, City of Bath Technical College, Avon Street, Bath, BA1 1UP.

BOLTON INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING

Applications are invited for the post of

Lecturer Grade II in Civil Engineering

Candidates must hold an appropriate Honours Degree and have some years' relevant practical experience or have undertaken appropriate postgraduate studies. A particular interest in Land Surveying is essential, but the person appointed will be expected to teach other civil engineering subjects.

The Department currently offers a range of full-time/sandwich course including BSc (Honours) in Civil Engineering, and HND in Civil Engineering and Building.

Duties to commence on September 1, 1978, or as soon as possible thereafter. Previous teaching experience is desirable but not essential. Initial salary dependent on qualifications and experience and will be within the scale for Lecturer Grade II, viz:—

£4,132 to £6,501

Application forms and further details are obtainable from the Principal, Bolton Institute of Technology, Deane Road, Bolton BL3 5AB, to whom completed applications should be returned within two weeks of the appearance of this advertisement.

BOLTON INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING DEPARTMENT

Senior Lecturer

Applications are invited for the appointment of a Senior Lecturer in the Department of Electrical Engineering.

Applicants will be required to have graduate qualifications acceptable for Chartered Status and industrial experience relevant to the Systems Engineering Department. An interest in, and experience of, Digital Systems Engineering would be an advantage.

The Department has a healthy full-time CNAA Degree and Honours Degree, and parallel Higher Diploma and Associate Ship courses in Electronic Engineering, Specialisms are Electronics, Communication Systems, Control Systems and Digital Systems; Research work in these areas is encouraged.

Initial salary will be dependent upon qualifications and experience and will be within the scale:—

£6,094 to £7,403 (but as £7,897)

Application forms and further particulars may be obtained from the Clerk, Bolton Institute of Technology, Deane Road, Bolton BL3 5AB, to whom completed forms should be returned by July 21, 1978.

Univ-ity of Southampton Students' Union
Applications are invited for the post of

ADMINISTRATIVE ASSISTANT
(Athletic Union)
Salary Scale 1B
£3,189 to £5,282

A knowledge of basic accounting procedures, meetings and the drafting of Minutes and a sound administrative ability is necessary. An interest or experience in Sports Administration would be an advantage.

Further particulars from Mr. D. S. Hinder, Southampton University Students' Union, Highfield, Southampton SO9 5NH, to whom applications (five copies) should be sent to arrive not later than the 2nd August, 1978.

Colleges of Further Education

ESSEX
CHELMSF INSTITUTE OF HIGHER EDUCATION
Victoria Road South, Chelmsford, Essex
Tel: (0245) 354291

FACULTY OF EDUCATION ARTS AND HUMANITIES

RESEARCH ASSISTANT required to take part in an SSRC funded study of PASTORAL CARE in the Comprehensive School. The Candidate should have a good Honours Degree in Education or one of the Social Sciences. Teaching experience or experience of educational Research an advantage. The position entails considerable work in schools.

Initially for a fixed term contract to commence on 1st October 1978.

Salary: £4,005 per annum.

Application form, to be returned within 10 days of the appearance of this advertisement and further details from the Faculty.

Courses

City of Birmingham Polytechnic
Birmingham School of Architecture

S.R.C C.A.S.E. RESEARCH STUDENTSHIP

Applications are invited from graduates of these departments in 1978 with an upper second or first-class degree, for the above studentship within an Architectural Science team.

The project, an investigation of remedial actions to improve the environmental performance of overheated buildings, is particularly suited to graduates of Building Science, Environmental Engineering, Architecture, etc.

Applications should be made to Dr A. Hildes, Birmingham School of Architecture, City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU. Telephone 021-356 8911. By July 24, 1978

CAMBRIDGE
FOREIGN LANGUAGE INTENSIVE COURSES
at
BROOKSIDE COLLEGE

Brookside College will be holding the following foreign language courses commencing August 7th:

(1) MODERN ENGLISH LITERATURE. This course will consist of lectures and seminars and, as well as focusing on the major works of the first half of the twentieth century, will also comprehensively emphasise the literature of the period 1945 to the present day.

(2) Training Course in the Teaching of ENGLISH as a Foreign Language. This course gives equal emphasis to both the theoretical and the practical aspects of teaching foreign students of levels ranging from elementary to advanced and includes the teaching of examination techniques.

Both courses will conclude with optional examinations. Students successful in these examinations will be awarded appropriate certificates. The Undergraduate Fee is required for a composite (reduced) fee.

For further details write to the Vice-Principal, Brookside College, 5 Brookside, Cambridge. Telephone: 62228 (0223).

Librarians

CITY OF BIRMINGHAM
THE POLYTECHNIC
LIBRARIAN

Required for the Community Studies Library, a post which is responsible for a large collection of literature on the Social Sciences, and the Arts and Humanities.

Salary Scale: £4,302 to £6,501 (Ref. £5,401).

Further details and application form from the Staffing Officer, The Polytechnic, Perry Barr, Birmingham B42 2SU. Telephone 021-356 8911 (ext. 3 [illegible]).

Please quote reference [illegible]

WEST SUSSEX
INSTITUTE OF HIGHER EDUCATION
Chichester and Bognor Regis Colleges

Appointment to the post of Trainee Librarian and Bognor Regis College.

CHARTERED LIBRARIAN

Preferably with some experience in an academic library is required to assist the senior technical staff in the Institute library, which are based at Bognor Regis College. Experience in cataloguing and stock editing and any ability to contribute to general reader advisory services are looked for.

Salary APT5 and R.L.G. conditions of service.

Application forms and further particulars are available from the Chief Administrative Officer, West Sussex Institute of Higher Education, The Dome, Upper Bognor Road, Bognor Regis, Sussex PO21 1HR. Closing date for applications two weeks after the appearance of this advertisement.

EDINBURGH
ASSISTANT LIBRARIAN
ADVOCATES' LIBRARY

Applications are invited for the post of ASSISTANT LIBRARIAN in the Library of the Faculty of Advocates. Salary according to qualifications and experience starting at not less than £3,000 per annum.

Two further particulars apply to the Treasurer of the Faculty of Advocates, Parliament House, Edinburgh.

Applications will require to be made not later than July 14, 1978.

Colleges of Further Education

ESSEX
CHELMSF INSTITUTE OF HIGHER EDUCATION
Victoria Road South, Chelmsford, Essex
Tel: (0245) 354291

FACULTY OF EDUCATION ARTS AND HUMANITIES

RESEARCH ASSISTANT required to take part in an SSRC funded study of PASTORAL CARE in the Comprehensive School. The Candidate should have a good Honours Degree in Education or one of the Social Sciences. Teaching experience or experience of educational Research an advantage. The position entails considerable work in schools.

Initially for a fixed term contract to commence on 1st October 1978.

Salary: £4,005 per annum.

Application form, to be returned within 10 days of the appearance of this advertisement and further details from the Faculty.

Courses

City of Birmingham Polytechnic
Birmingham School of Architecture

S.R.C C.A.S.E. RESEARCH STUDENTSHIP

Applications are invited from graduates of these departments in 1978 with an upper second or first-class degree, for the above studentship within an Architectural Science team.

The project, an investigation of remedial actions to improve the environmental performance of overheated buildings, is particularly suited to graduates of Building Science, Environmental Engineering, Architecture, etc.

Applications should be made to Dr A. Hildes, Birmingham School of Architecture, City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU. Telephone 021-356 8911. By July 24, 1978

HERTFORDSHIRE
THE HATFIELD POLYTECHNIC
TO HEAD OF SERVICES
LIBRARY

A person interesting and capable of providing a dynamic and imaginative service to meet the requirements of students and staff of the Hatfield Polytechnic.

Further details are available from the Staffing Officer, The Hatfield Polytechnic, Hatfield, Hertfordshire. Hatfield AL10 9AB. Tel. 07072-79261 (ext. [illegible]).

Required from 1st September 1978. Candidate of teaching or professional status. Salary Scale: Senior Lecturer Grade I £4,302 to £6,501 (Ref. £5,401).

Please quote reference [illegible]

WEST SUSSEX
INSTITUTE OF HIGHER EDUCATION
Chichester and Bognor Regis Colleges

Appointment to the post of Trainee Librarian Chichester and Bognor Regis Colleges.

CHARTERED LIBRARIAN

Preferably with some experience in an academic library is required to assist the senior technical staff in the Institute library, which are based at Bognor Regis College. Experience in cataloguing and stock editing and any ability to contribute to general reader advisory services are looked for.

Salary APT5 and R.L.G. conditions of service.

Application forms and further particulars are available from the Chief Administrative Officer, West Sussex Institute of Higher Education, The Dome, Upper Bognor Road, Bognor Regis, Sussex PO21 1HR. Closing date for applications two weeks after the appearance of this advertisement.

Appointments Wanted

AUSTRALIA EXCHANGE
UNIV. LD SOCIOLOGY
Adelaide

Seeks one year post in U.K. beginning June, 1979 or January 1979 on basis of exchange of teaching duties salary begins at Max £5[illegible] Boarhound 50 [illegible].

FRENCH GRADUATE

M.ès L. Postgraduate. Diplomée Ecole Normale Supérieure Jeune Fille. Seeks post in Modern Languages teaching, administration of Salons, [illegible] with Frame. Time to travel.

Please write in Box [illegible] V. THES, W.C.1.

General Vacancies

ARTS COUNCIL OF GREAT BRITAIN
RESEARCH PROJECT
THE ARTS IN COMMUNITY COLLEGES

The Arts Council wishes to appoint an experienced social scientist who has worked in the arts or education, to observe, analyse and evaluate current provision for the arts in a small number of community colleges in Britain. It is planned that the project should run for one year beginning with a provision for an extra three months participation in computing and writing up the report.

The researcher will report to a steering group which will include one or two Arts Council officers and will help select the colleges for study as well as advising on research methods.

The fee for work on this project will be £6,000 per annum, a salary of £6,000 per annum (excluding expenses).

Applications with full curriculum vitae and the names and addresses of two referees should be sent by July 31, 1978 to the Establishment Officer, Arts Council of Great Britain, 105 Piccadilly, London W1V 0AU, from whom further details are available.

Overseas

The British Council
ENGLISH FOR MEDICINE, SCIENCE AND TECHNOLOGY
King Abdul Aziz University, Jeddah, Saudi Arabia

The English Language Centre of the University requires lecturers to train students in English medium study skills, mainly for the College of Engineering and Medicine (course details available on request). The ELC is now fully established with its own graphic, photographic, reprographic, television and sound studios and 2 language laboratories. Expansion for 1978/79 has created a need for lecturers with experience in the following subjects: Mathematics, Physics, Geology, Environmental Design.

(Note: one of these should be eligible to teach in Mecca.)

Applicants should be graduates in a relevant subject with a lively interest in the linguistic problems of the students.

The following non-teaching staff are also required:

One Administrative Officer (male, to be appointed to the Senior Lecturer scale) who will take responsibility for such matters as staff housing and documentation, inventories, the local purchasing account and the day-to-day academic contact of the Language Centre. Some knowledge of Arabic and relevant experience are desirable.

One Television scriptwriter/producer (male, to be appointed at Senior Lecturer level). Relevant experience in ESL, ESP or EST essential.

One Electrical Engineer (to be appointed at Lecturer level) to help service the language laboratories and studios.

Two Reprographics specialists (to be appointed at Lecturer level) to run the expanding reprographics section—2 Rotaprint litho presses, PPC etc.

Salary scales depend on family circumstances. The following monthly scales may be taken as a guide:

Lecturers: Single, SR 3,895-4,485; Married with two children over 5 years old at post: SR 6,480-7,070.

Senior Lecturers: Single, SR 4,240-4,839; Married with two children over 5 years old at post: SR 6,834-7,424.

(Current rate of exchange SR 6.45 equals £1.)

At the end of the first year's service staff are eligible for an increment and promotion to higher grades (Head of Course, Senior Head of Course, Senior Management). Free furnished accommodation is provided. Return fares are provided at the beginning and end of each year of contract for the staff member and up to three members of family.

The contract, which is for one year and is renewable, is guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post, for further details and application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA. 78 WU 48-71

Torrens College of Advanced Education

Torrens College of Advanced Education has been designated as the centre for education in the Performing Arts in Adelaide, South Australia. A Bachelor's degree course in music, with emphasis on string playing and singing commenced in 1977, and a course in opera began in 1978. Other courses in dance and drama are planned for the future.

Applications are invited for the following positions which may be either full or part-time, permanent or contract, for a fixed period:

Lecturer in Viola
Lecturer in Cello

Salary $A13,086-$A19,943.

Written applications, including names and addresses of three referees, should be sent to:

THE ACADEMIC SECRETARY,
TORRENS COLLEGE OF ADVANCED EDUCATION,
HOLBROOKS ROAD, UNDERDALE, SOUTH AUSTRALIA 5032

Closing date, August 31, 1978. For further information contact Mr. W. Hinkley.

Overseas continued

Papua New Guinea Department of Education

A new concept in education

The Government of Papua New Guinea, in keeping with its strategy of Rural Development, has allocated funds (£600,000) to the Department of Education to pilot an innovation in secondary education to determine if the present "academic" system can be modified to make it more practical in orientation without a decline in real learning. If is hoped graduates will as a result have skills and attitudes more appropriate to village development. Known as the "Secondary Schools Community Extension Project" (SSCEP), the programme will involve five high schools over an initial four year period after which a decision will be made to terminate the project or extend it to more high schools.

The project will be managed, serviced and evaluated by a team of four Headquarters officers based in Port Moresby and working closely with the Department's Curriculum Unit. The National Coordinator has been appointed and we now urgently require:-

Three Experts in Education

1. Expert – Curriculum (Level 9)

This officer will work under the National Coordinator, leading the team of three experts in providing ideas, techniques, sample materials and direction to staff of project schools so that SSCEP aims, in terms of curriculum, measurement, selection and evaluation may be achieved. He will be responsible for assisting teachers with materials/guide-lines enabling them to teach students through practical activities supporting rural development. He should be a graduate with post-graduate training in Curriculum Development, and have established competence and diverse experience in curriculum work at secondary level, preferably including experience in a developing country.

2. Expert – Education Measurement (Level 7)

This officer will work under the Curriculum Expert as a member of the team developing measurement techniques which can be effectively used by typical secondary teachers to assess the desire and ability of students to apply curriculum learnings to the solution of village problems. The techniques will go well beyond standardised paper and pencil tests. He should have post graduate qualifications in Educational Measurement and be experienced in the development and evaluation of education innovation projects, preferably including experience in a developing country.

3. Expert – Educational Psychology (Level 7)

This officer will work under the Curriculum Expert as a member of the team, assisting with the development of valid and reliable method, of using teacher judgements to measure behavioural and value changes related to achievement of project objectives. He will also be involved in solving communications problems (staff, students, community). He will have post-graduate training in Educational Psychology, and established competence in school measurement applications of Educational Psychology. Developing country experience an advantage.

In each case the expert will be required to travel widely within Papua New Guinea visiting schools, convening workshops, and generally ensuring SSCEP aims are being implemented at all levels. This travel may include visits to remote outstations where the quality of accommodation cannot be guaranteed.

Pay Per Annum

Expressed in Kina. Current rate of exchange K1.33 = £1.00.

Level	Salary	Annual Bonus
7	13,111	3,359
9	15,765	3,905

Bonus is payable on satisfactory completion of Period of Engagement – two years (renewable in most instances).

General entitlements are very attractive and include an education allowance for dependent children attending secondary school overseas, return air passages with personal effects and baggage allowance, low cost married and single accommodation and generous leave conditions.

Please write or telephone for an application form and further details, quoting reference VIS/EDUC/19, to: The Recruitment Attaché, Papua New Guinea High Commission, 14 Waterloo Place, London SW1R 4AR. Tel: 01-930 0606/0607. Closing date for applications – 1st August, 1978.

Papua New Guinea

Western Australian Institute of Technology

The Institute is a major tertiary institution providing degree and diploma studies at both undergraduate and graduate levels for over 11,000 students. Programs may be taken full-time, part-time or external study.

School of Applied Science

Head of Department

Mathematics and Computing Studies

The Department is one of five Departments in the School of Applied Science. At present programs offered include Bachelor of Applied Science, Graduate Diploma in Mathematics and Graduate Diploma in Computing. It has a full-time academic staff of 16, and some 300 students are enrolled.

The courses are essentially of an applied nature. In addition to a core of basic mathematics, students may elect to specialise in applied statistics, computing, numerical analysis or operations research.

The Department is also heavily involved in service teaching for other departments.

The Head of Department will provide effective leadership, both educational and professional, co-ordinate academic and administrative operations and further the Department's involvement in industrial applications.

Qualifications: Post Graduate qualifications and professional or industrial experience and/or tertiary teaching are essential.

Salary: £16,560 (Salary quoted at June 16 rate of exchange $0.6177 = $1.00).

Tenure: Appointment may be either permanent, or on contract for a period up to three years.

Conditions include: (Permanent) Annual, Long Service and Study Leave, Superannuation (similar to FSSU). Fares for family plus assistance for removal expenses and temporary accommodation. (Contract) Return fares for family plus some assistance for removal expenses.

Applications:
Detailed applications including a curriculum vitae and the names and addresses of three referees should be submitted not later than 4th August, 1978, to the Migration Liaison Officer, Western Australian House, 115 Strand, London WC2R 0AJ, England. Further brochure containing further information may be obtained from the above address.

When applying please quote reference number 008 HE5.

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To teach at postgraduate level and to undertake and supervise research. Applicants should have degree probably a doctorate in agricultural engineering or related subject with teaching, industrial and consultancy experience. Should have experience in at least (a) agricultural physics with specialisation in soil-water-plant relationship or (b) soil and water engineering with specialisation in soil conservation. Should have an understanding of the agricultural needs of developing countries in Asia. Academic and practical experience in that region an advantage.

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For full details and application form please apply, quoting reference stating post concerned, and giving details of age, qualifications and experience to —

ODM

Appointments Officer,
MINISTRY OF OVERSEAS DEVELOPMENT,
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Two-year KELT contract. 78 PT 8

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HEAD OF TEACHER TRAINING DEPARTMENT
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Salary: Cr$20,000-Cr$24,000 per month (current rate of exchange Cr$27 = £1).

Benefits: annual bonus, currently £600; installation grant £110; employer's portion of superannuation contribution; medical scheme. Two-year contract, renewable. 78 PO 13

LECTURERS IN INFANT EDUCATION
(Singapore)

Institute of Education, School of Professional Studies. Five Lecturers required. Candidates, women only, should have specialist training and three years' experience of kindergarten/infant school teaching. An MA/MEd in a relevant subject is essential for Grade 'B' salary scale. Experience in a multi-racial school is particularly valuable.

Salary: Lecturer B $1,705-2,420 pm
Lecturer C $1,055-2,160 pm (current rate of exchange $4.30 = £1).

Benefits: Two or three-year contract; housing and displacement allowances; gratuity on completion of contract. 78 PT 7-11

Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post, for further details and application form to the British Council (Appointments), 65 Davies Street, London W1Y 2AA.

THE BRITISH COUNCIL

AUSTRALIAN MARITIME COLLEGE

Senior Academic Staff

The AUSTRALIAN MARITIME COLLEGE is presently being established at Launceston, Tasmania as an autonomous college of advanced education to provide marine education and professional training courses for the maritime, fishing and associated industries. As the national college, it will be the only one of its kind in Australia. It is envisaged that the college will co-operate with the nearby College of Advanced Education and the Technical College in the provision of courses and the sharing of certain facilities. Launceston, with a population of 65,000, is the major centre for the northern part of Tasmania. It has direct sea and air links with the mainland, offers a wide range of activities and amenities and has a pleasant, temperate, climate.

Appointees will be expected to take up duty as early as possible in 1979 in order that they can contribute effectively to the planning and initial development of the college.

Head: Department of Operational Safety and Executive Training

To establish and lead the development of practical seamanship training at the College's seamanship centre. The training courses envisaged include induction training for deck, engineer and radio officer entrants and practical training in seamanship, cargo work and life-saving appliances. The occupant of this position will also be responsible for the operation of the navigation and seamanship training vessel and the training plant – and for co-ordination of the training programmes afloat, in conjunction with other relevant Departments.

Whilst good academic qualifications would be an advantage this is less important than relevant experience of organising this type of training – supervisional on extensive ongoing operational and professional qualifications. The occupant of this position will, amongst other things, be capable of taking command of the training vessel from time to time.

Head: Department of Ship Operations

To establish and lead the development of short courses for senior officers in positions afloat and ashore within the shipping and allied industries. Courses will cover areas such as: management, cost control techniques, work study, personnel relations, shipboard emergency planning, port emergency planning, maritime law, marine insurance and liability.

It is anticipated that the parts of courses dealing with general management and accountancy etc. will be serviced by the adjacent College of Advanced Education. The occupant of this position should therefore have qualifications and experience appropriate to the applied or marine aspects of the work, in particular a sound knowledge of merchant ship operation is necessary.

The SALARY levels for the above positions have still to be determined but depending upon the degree of responsibility involved in each position, and the qualifications and experience of the successful applicant it is anticipated that they will fit within the range $A22,001 – 24,568. (At present exchange rate, £1 = $A1.82).

CONDITIONS will be commensurate with those generally available in Australian colleges of advanced education and universities. Assistance may be available with housing. Fares for the appointee and family, reasonable removal costs, and a settling-in allowance will be paid.

ENQUIRIES are invited from suitably qualified and experienced persons. Full particulars – including qualifications and professional status, experience, present position, the names and addresses of two referees and earliest date upon which the applicant could take up duty if selected – should be supplied to the Secretary, Interim Council, Australian Maritime College, 458 St. Kilda Road, MELBOURNE, Vic. AUSTRALIA 3004 by 4th August 1978.

Australia

AUSTRALIA

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QUALIFICATIONS: Applicants must have a sound major in sociology and substantial teaching experience at tertiary level. The applicant should provide evidence of competence in several of the following areas:

Classical theory, contemporary theory, social deviance, organisational theory, social stratification and methods in the social sciences.

APPLICATIONS CLOSE: Monday 14 August 1978. Typewritten applications stating qualifications, experience and giving sufficient information to indicate suitability for interview should be sent airmail to the Staffing Officer, Box 423, Warrnambool, Victoria, 3280, Australia.

4048

Warrnambool Institute of Advanced Education

LECTURER IN CHIROPODY

Applications are invited for Lecturer in Chiropody within the Victorian School of Chiropody. Duties will include: (1) teaching undergraduate programmes, (2) participating in the development of postgraduate courses and (3) assisting the Head of School in all aspects of the administration and development of the School.

Applicants should have appropriate professional qualifications and experience in teaching and administrative experience. They should be members of Chiropodists Certificate in Local Anaesthesia, and be registered Teachers at the Society of Chiropodists.

The School of Chiropody at Lincoln Institute in Melbourne commenced in February 1976, when 10 students were admitted to the Diploma course. The post represents an opportunity to become involved in the establishment of the School and the further development of the profession in Victoria.

Salary will be in the range: Lecturer II $A14,985 to $A17,134, Lecturer I $A17,997 to $A19,684. Assistance will be given towards the cost of removal expenses for an overseas appointment.

Applications in writing including full curriculum vitae together with the names of two professional referees should be addressed to the Registrar, Lincoln Institute, 625 Swanston Street, Carlton Closing date: August 12, 1978.

The British Council

ENGINEERING AND TECHNOLOGY

The British Council, which has a responsibility for Britain's cultural and educational relations overseas, has a number of vacancies for candidates with qualifications and experience in engineering and technology.

The Council's work in many countries includes scientific liaison, the administration of programmes of scientific interchange and the development of contacts with academic and research institutions. In Britain, the Council's engineering and technology staff provide the necessary support for the work overseas. They advise on the planning of overseas courses in Britain, and are concerned with the design and implementation of development projects in their specialist subject areas.

We should like to hear from you if you are a graduate in engineering or technology, or possess an equivalent professional qualification, and have several years' postgraduate experience in research, industry, education or administration. Proven organisational ability and the ability to work harmoniously with others are essential.

Appointment may be to the Council's Overseas Career Service or on contract terms to a post in Britain or overseas. Staff appointed to the career service may expect to work overseas for much of their careers, but their initial posting may be in London. Recently, most successful candidates for the Overseas Career Service have been between 25 and 32 years of age.

The initial salary is in the region of £5300, and terms and conditions of service are in line with those of comparable organisations in the public sector: free accommodation and overseas allowances, including children's education allowances, are provided while overseas.

For further details and an application form, please write or telephone quoting E/1 to Staff Recruitment Department, the British Council, 65 Davies Street, London W1Y 2AA, telephone 01-499 8011, ext 3041.

The British Council

LECTURER IN ENGLISH

THE PEOPLE'S REPUBLIC OF CHINA

The British Council, which has a responsibility for Britain's educational and cultural relations overseas, requires a Lecturer in English to undertake a one-year contract appointment in the People's Republic of China.

In association with a Senior Council colleague, the appointee will be required to lecture on various aspects of English Language studies to Professors and Associate Professors of English from Chinese universities and institutions of higher education. He or she will also be required to participate in weekly symposia which will be open to a wider audience of teachers interested in English language learning. The ability to lecture on linguistic theory or on some aspect of Old or Modern English literature will be an advantage.

The teaching year will be divided into two 'terms' of approximately five and a half months, separated by a short break. The first 'term' will be spent in Peking, the other in Shanghai. The British lecturers will be accommodated in hotels for the duration of their stay in China and, for this reason, only candidates who are single, or who are willing to travel unaccompanied, will be considered.

Candidates should possess a higher degree at Master's or at Ph.D. level. A postgraduate qualification in the Teaching of English as a Foreign Language or in Applied Linguistics, and at least five years' experience of ELT are essential. Teaching experience in East or South East Asia is desirable.

The salary will be in the region of £6,400 to £7,490 depending on qualifications and experience. Free accommodation and meals, return passages, and Baggage allowance will be provided.

For further details and application forms please write or telephone quoting C/2 to Staff Recruitment Department, The British Council, 65 Davies Street, London W1Y 2AA, or telephone 01-499 8011, extension 3041.

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position of the Assistant/Associate Professor level with specialty in Electromagnetics, Communications Systems and Control or Electronics. Position requires undergraduate and graduate teaching and graduate research activity.

Qualifications include the Ph.D., teaching experience and pertinent post-doctoral or industrial experience. Salaries salary based on individual basis.

Send résumée and names of two references to M. Irani-Kermani, School of Graduate Studies, NIOC, P.O. Box 11-1533, Tehran, Iran.

All advertisements are subject to the conditions of acceptance of Times Newspapers Ltd, copies of which are available on request.

Don's diary

Time off

I have long thought that industrialists, trades unionists and government officials should take more time off from their jobs to study *together* the mutual and overlapping problems they have to meet in their work every day. Would not, for instance, industrial relations (arguably our biggest single problem) be less fraught with unnecessary conflict and confusion if the longer term issues were discussed in this way? With this bee buzzing around my head I devoted a *Journey in the States* this spring to industrial relations and the institutional approach to its teaching, visiting several universities and business schools and in Washington the Brookings Institution and the trades unions' George Meany Centre for Labour Studies.

But the first thing I learnt was that most people did not really regard industrial relations as a big problem. And when in Stanford I asked that guru of management education, Professor George Leland Bach, what he saw as the main problem areas during the next few years, industrial relations was not one of them. For trades unionism, except in the public sector, is declining in the States. Because of the weak power of the unions (except in a few industries) industrial and labour relations are thought of by managements mainly in legalistic terms.

Moreover, trades unionism on a large scale is concentrated in only seven contiguous states—Illinois, Indiana, Michigan, New Jersey, New York, Ohio, Pennsylvania—and in the maverick on the west coast, California. As industry moves southwards into the "sunbelt" states the labour movement gets weakened because companies tend to make us sure as they can that they keep unionization out of their plants in the new areas, and indeed there is a new profession of legal experts and consultants who prepare the way and help companies to achieve this objective.

To set against this, however, is the massive increase in membership of the public sector organizations, mainly white collar. In New York the state and city employees are almost 100 per cent unionized.

Changes

All this set me thinking about the changes that were taking place in "the American way of life", the American way of government and of business. Some Americans are arguing that perhaps the traditional notions of individualism and uninhibited enterprise, with minimum intervention by government, are no longer adequate in a world in which affirmative action and regulatory equal opportunities provide the main theatre for the increasingly wide range of challenges sparring for position and rank in the society of today. Are, peradventure, the old ideologies which inspired the expanding frontier becoming outmoded and inadequate? With the Kennedy assassinations, Vietnam and Watergate the past two decades have been traumatic ones, and now there is a deep Southerner in the White House for the first time since the Civil War. As a historian I felt I needed a pause for reflection, to assess the ideological state of the union.

I found the conceptual agent I sought at Harvard (where else?) in the book-lined study of the political scientist George Calton Ladge, scion of a gilted family of public servants, who when I first met him in 1972 proudly acclaimed he was the only full professor at Harvard Business School without a doctorate to his name.

Ladge believes that the Americans, being a pragmatic as well as idealistic people, are trying to tackle their problems in an ad *hoc* way, but without analysing the "real world" changes that have taken place. His premise, developed in a remarkable article in the *New York State Bar Journal* of April 1977, is that the old ideas and assumptions which gave legitimacy, authority and confidence to America's great institutions are fast eroding. In the face of a changing reality they are being replaced by different ideas and assumptions which are as yet ill-formed, contradictory and shocking. Americans are sailing away from familiar moorings and into an unknown sea. They need a new chart, a plan to find their way. And the first need is to prescribe a new ideology from the reality of the changes taking place.

Lockean

The traditional ideology of the United States, says Ladge, is composed of five great ideas which first reached America in the 18th century, having been established in 17th century England by John Locke and others. What he calls "the Lockean Five" are:

(i) Individualism—the idea that fulfilment lies in an essentially lonely struggle in what amounts to a wilderness where only the fit survive. Closely allied to individualism is the idea of equal opportunity and, most importantly, the idea of contract, "the

John Locke by Sylvester Broucover

invisible device by which individuals are tied together as buyers and sellers".

(ii) Property rights—by virtue of the sanctity of property rights the individual was assured of freedom from the predatory powers of "the sovereign" or state.

(iii) Competition—"the uses of property are best controlled by each individual proprietor competing in an open market to satisfy individual consumer desires".

(iv) Limited state—in reaction to the powerful medieval hierarchies, the best government is the best government.

(v) Scientific specialization and fragmentation—for instance, the individual academic disciplines allowing the best man in each field to dig his own tunnel, even if this may lead to "an ever-narrowing trench of new knowledge".

These five components of the old ideology still retain great resilience. But, says Ladge, there are two big difficulties: first, "the old ideas perform less and less well as definers of values in the real world of today"; and, second, "many of our most important institutions—notably, but by no means exclusively, the large, publicly held corporations—have either radically departed from the old ideology or are in the process of doing so in the name of obedience to the law, efficiency, economies of scale, consumer desire, productivity, crisis and necessity". A new ideology is therefore needed "to legitimize the behaviour of these institutions", and Ladge sets out his own thoughts to replace the Lockean Five.

New ideology

(i) To replace individualism he suggests communitarianism—the idea that the community is more than the sum of the individuals in it, has special needs as a community, and "the survival and the self-respect of the individuals in it depend on the recognition of these needs". The essence of contract becomes more collective, legalistic.

(ii) Rights and duties of membership. Much property is no longer owned but rather leased or rented. The new right of social and political importance is the right to service—"to enjoy income, health, and other rights associated with membership in the American community or in some component of that community, including a corporation". But since the large public corporations are not "private property" in the individual sense, the provenance of power and the legitimization of "rights and duties" must be defined.

(c) Competition from consumer desire must to some extent give way to community need—"if, in the name of efficiency, of economies of scale, and of the demands of world markets, we allow restraints on the free play of domestic market forces, then other forces will have to be used to define and preserve the public interest. These other forces will amount in clearer central by the well-fed order, in some form or other".

(d) For the limited state, there must now be an active, planning state—"the setter of our sights and the arbiter of community needs". Ladge points out that all American political leaders since Franklin Roosevelt have found it necessary to plan, "but they cloak their departures from limited state in the language of the old hymns, assuming to make their innovations seem pragmatic, ignoring their logical implications", or reverse than confusing and irritating because "it delays the time when we will recognize planning functions of state for what they are and make them".

(e) Finally, the old idea of scientific specialization has given way to a new understanding of the interrelatedness of all things—"harmony between the woman and the demands of the land is no longer the romantic fantasy of conservationists. It is a practical rule of survival, and about profound ideological shifts are subverting in many ways the Lockean ideas". E. interdependence.

The concept of interdependence leads me back to the firm subject of this diary—and, in turn, the Brookings Institution which provides the inspiration and the facilities to bring together industrial, trades unionists and government officials ("the modern equivalent of the realm", as Professor Eric Beesley of the London Business School has called them).

Round table

Among its very wide range of activities is the Brookings Round Table, an informal forum for about 70 men and women from the top echelons of federal government agencies and departments, also including two or three of the president's closest advisers, and among the presidents and vice-presidents of the leading corporations and from among the most prominent trades unionists in the country. I met for several hours on a Wednesday evening per week to discuss a major issue of the day with an invited guest.

As I flew out of New York my thoughts were uppermost in my mind. Legislation is not the only mechanism to engineer changes in industrial relations. Moreover, arguably, we really do need the Brookings-type Institution, not only for the reasons I spelled out in my diary, but also because, as argued by Professor Beesley and others, but as a visitor to the estates of the realm.

Philip W.

The author is director of the Ashridge Management Research Station for Management Education, London.

Property tax cuts and public schools

Steven Muller

Sometimes it is the obvious which eludes attention. Amidst so much, and still increasing, discussion about the future of the American university, for example, little mention is made of the obvious fact that the fundamental character of tomorrow's higher education is already being determined by what is happening today in the primary and secondary schools. No university, no matter how distinguished in research and public service, can avoid this basic dependence. Inevitably, every university must deal with students; and how it is able to do so is defined primarily by the level of preparation to which students have been brought in the schools.

In the United States, the vital connexion is between higher education and the public schools. No American college or university today draws its students only from private schools, nor are there special schools in the public system that function specifically to prepare students for higher education. The normal American practice is that colleges and universities are free to stipulate certain requirements as conditions for admission, and that the schools advise prospective college and university students to select the proper programme of courses to qualify for admission. Outside special preparatory schools, however, college preparatory courses are simply part of the total curriculum of the school. Therefore their content and quality depends absolutely on the character of the school as a whole.

American public schools are anything but uniform and alike. Within the federal system of government of the United States, the public schools are primarily creatures of local government. Financed mainly by local taxes, organized within school districts established at the city and county level of government, supervised by boards of education locally elected or appointed, the public schools vary almost as much as the diversity of rich and poor, urban and rural communities in which they function. They vary only *almost* as much, because minimum standards of school activity are prescribed by state government in each of the 50 states, and because both the governments of the states and the federal government in Washington increasingly have provided appropriations designed to overcome the worst inequities between schools in the most economically deprived as contrasted with the most affluent local school districts. But despite such efforts by state and federal government, accompanied in recent years by legislation requiring a balance of races, the public schools remain under local control. They therefore also continue to differ enormously from each other.

To say that the public schools are financed mainly by local taxes, is, in America, to refer to the tax on property, meaning essentially land and buildings. Income tax is collected by the federal government. Many of the states also collect income as well as many excise taxes. Cities and counties collect property taxes and, alongside occasional local sales taxes, property taxes therefore pay for local government services, including the public schools. Corporations and landlords pay property taxes as well as do individuals, but in America the principal fiscal burden of local government traditionally has been borne by the private home owner. The value of land and dwelling is assessed each year, and the property tax must be paid. It constitutes, by the way, no allowable deduction from income tax.

These observations are prompted by the widely publicized taxpayers revolt which occurred in California in early June. The voters of that state supported, by a majority of two to one, a citizens' initiative on the ballot in the form of Proposition Thirteen. In essence, the new law represented by this referendum sharply reduces the property tax; puts severe limits on future increases in the assessments on which the property tax is based; and requires a two-thirds majority in both houses of the state legislature to permit any new taxes to replace the reductions in property taxes. The reduction in income from the property tax in California is a result amounts to more than $7,000m this year. And the loss of tax revenue falls first and squarely on local governments, and therefore also on the public schools.

As commonly perceived, it is unthinkable that essential local services such as fire and police protection, sanitation and education could or should be cut by more than half in response to Proposition Thirteen. Instead, it is expected that the state of California will immediately allocate a $5,000m surplus in state revenue to local governments to cushion the blow. There is no doubt that knowledge of this large state surplus was a major incentive to the California voters who passed Proposition Thirteen. It is also expected that all state expenditures will be greatly reduced so that more state general revenue can be allocated in support of local governments on a continuing basis. And there is also no doubt that this, too, was specifically intended by the voters.

For education in California, three immediately resulting questions have already been identified. First, what priority will the public schools receive, as local governments decide how and where to cut costs, and as the state decides which local services require the largest amount of state help? Second, what will be the long-term impact on local control of the public schools of this new situation, which substantially shifts the fiscal burden of their support from the local to the state level? Third, what reductions will the state of California make in the budgets of state-supported higher education in response to Proposition Thirteen, and what strains will develop between the University of California and the other California state colleges and universities on the one hand, and the local public school systems on the other, now that they have been placed in the new position of to effect bargaining to compete with each other for general state revenues?

As yet it is too soon for answers even to these immediate questions. And behind Proposition Thirteen in California loom larger questions that will concern all of education in all of the United States. The main phenomenon that led two thirds of the California voters to support Proposition Thirteen was outrage at the large and increases in property taxes over the past several years. These increases only reflect the current increase in land and dwelling values and prices. And the decrease to turn meant the dream of home ownership resulting from more and more Americans derive from the assumption that a majority of Americans own their own homes. As their values will be greatly reduced so that more state general revenue can be allocated in support of local governments on a continuing basis. And there is also no doubt that this, too, was specifically intended by the voters.

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TIMES PAST THE TIMES

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Bakke blow to race equality

The ambiguity of the United States Supreme Court judgment in the case of the Regents of the University of California versus Allan Bakke reflects, no doubt accurately, the ambivalence that many technical Americans feel about affirmative action, the preferential treatment of black students and other minority persons in education and employment to compensate for past discrimination.

But the ambiguity of the court can only increase the confusion of public opinion. So the Bakke judgment represents a setback for the cause of racial equality in the United States, a cause into which so many of the best instincts of the union have been channelled during the last generation.

How much of a setback will depend on two things: the immediate legal interpretation that lawyers will place on what is a very unclear judgment and the effect this will have on the advice they give their clients, universities or companies, on the legal status of existing and future affirmative action programmes; and the longer range impact of the Bakke judgment on public opinion and political behaviour. Neither is easy to assess.

The court ruled by five to four that the University of California at Davis should admit Allan Bakke to its medical school—but it also ruled by a similarly narrow majority that the university should not be prohibited from "according any consideration to race in its admissions process".

The legal picture is further complicated because four of the five justices who found for Bakke did so on narrow legal grounds that Davis' refusal to admit Bakke, who was better qualified than some of the minority candidates, was contrary to the Civil Rights Act of 1964 rather than on broad constitutional grounds. Of the five justices who considered the constitutional issues two found for Bakke and four for the university.

This rather tangled outcome is what many people in American higher education had expected and many even welcomed. They are relieved that the Supreme Court has not outlawed affirmative action altogether although few regarded this as a real danger. But they also disliked the California policy of establishing strict numerical quotas which they felt run the risk of giving affirmative action a bad name.

So in his majority judgement the Supreme Court has probably accurately reflected the majority opinion among American universities and colleges that it is best to be discreet and flexible rather than rigid and rhetorically abrasive in their attempts to admit a more just proportion of black and minority students.

The danger is that while the broad message of the Bakke judgment may be clear, its precise implications are entirely unclear. Lawyers will have to decide just how much weight may be placed on race in admission procedures before they are regarded as illegal. Is everything except strict quotas permissible? Or must race be equally balanced along with other considerations such as athletic skill or musical ability? Can race be a predominant consideration or must it be given no special weight?

Here the contents of the majority opinions are of little help but their tone respectably than of Mr Justice Powell's decisive opinion will probably incline lawyers to take a cautious rather than an ambitious view of what is lawful and constitutional. So although the Bakke judgment may appear to be balanced and neutral its practical effect almost certainly will be to slow down the pace of affirmative action—and even to permit a little backsliding.

However, it is the longer range impact that is more worrying for those devoted to the cause of racial equality. A decision of the United States Supreme Court is not only a legal judgment, it is also a signal to public opinion and the signal sent out last Wednesday was cautious and conservative.

Precisely, in the case of the University of Washington versus De Funis the court ducked the issue of the constitutionality of affirmative action. Their inaction at that time was an indirect endorsement of such programmes. In the Bakke case they have not ducked the issue but instead delivered an ambiguous judgment. Now affirmative action not only no longer lacks the same implicit endorsement, but certain types—perhaps the most effective—have been declared illegal. Who knows how many more might also be regarded as unconstitutional or illegal if tested in the courts? Affirmative action is now thrown onto the defensive.

This judgment has come at a particularly dangerous time because in any case the moral imperatives of affirmative action seemed to be weakening in America. The liberal hopes of the 1960s are flickering in a cold conservative draught. Racial catastrophe no longer seems an imminent possibility. So both the positive and the negative pleas of affirmative action had been weakened before the Bakke decision. Great enterprises—and the achievement of racial equality was and remains a great and human enterprise—are falling out of fashion in America.

DipHE needs more time

A air of defeatism surrounds courageous comments on the proposed Diploma of Higher Education. Some observers are ready to call it a failure, while even colleagues which formed a pressure group to promote it seem to be looking for a scapegoat on whom to blame lack of immediate success. From the start, there was no shortage of people to foretell the demise of a potentially exciting development in higher education. It would have no value, they said, and would prove to be no more than an ineffective attempt to cut education spending still further. It might seem, at first sight, that the sceptics have been vindicated, with relatively few students enrolling and many employers unaware of its very existence. But has the Dip HE been given a fair chance?

Intending students are faced with entrance requirements as stringent as for degree courses, which are bound to appear more attractive. Even courses is rightly regarded as equal to the thinking behind the Dip HE, the need not be ruled out of the admission of students with only one A Level. Entrance qualifications are by no means an infallible guide to academic potential and a relaxation of this requirement might provide a timely boost for the diploma courses. The college principals, in their 1976 submission, rightly point out that it is not too late to "rectify an important error".

However, the diploma as it stands deserves more help than it has been getting, not least from its supporters themselves.

Much more important at this stage of the diploma's development is the evidence, albeit based on a small sample, that a high proportion of employers have given no consideration to recruiting diplomates, many because they have never heard of the qualification. Blame for this must surely be attached to those offering the courses. No one should be surprised if students are reluctant to embark upon a course which may have little value in the highly competitive employment market which awaits them. Only positive campaigning, rather than carping criticism, can put this situation to rights.

It would be unfair to judge the Dip HE on such a short and inconclusive period as it has undergone so far. All too often at present it is no more than a stepping stone to another qualification and it will inevitably take time for the diploma to establish itself in its own right.

LETTERS TO THE EDITOR

Research and government

Sir,—In view of their commission, it is understandable for Kogan and Norman to make apologia in their article (TIMES June 9) for the research arrangements in the DHSS, but not in so doing to give a false perspective to what *Five Years After* is all about.

The book is not an attack on the Rothschild principle. It is a constructive proposal on how it should be implemented. The working party do not believe that it has, in fact, been implemented to date. Moreover, there is a little ambiguity in the article which amounts to inaccurate reporting and which is at odds with the seeming impartiality of the authors' statement that the story is worth telling "accurately and impartially".

Indeed, the article does not point to any inaccuracy in the book. As to impartiality, is it likely that the six "eminent" scientists concerned, who have all been grateful beneficiaries of the system are more partial in their judgments than K and K, apparently commissioned by the Research Management Division of the DHSS? Incidentally, four of the seven members of the working party have disciplines other than that of social medicine and accordingly the description "mainly from the field of social medicine" gives a wrong impression of its composition.

With regard to the reference to me, your readers might be forgiven for assuming I had summarized the efforts of scientists who advise the DHSS as "negligible or futile". I certainly did not use this dismissive term, nor least because it would have been irrelevant. The abuse of fact is the rash polemic of your correspondents' argument, but not science, even social science.

In the editorial introduction to the two essays which together really make up the book I refined the observation made about review, monitoring and publication policies of the eminent scientists, who brought out the story in K and K's words, so "interestingly and relevantly". If K and K are complacent enough to believe a Chief Scientist's Organisation consisting of Chief Scientist, Executive Officer and Secretary (the professional strength of the CSO in Scotland is 20) can ever hope to develop a credible policy on those all-important, interrelated issues, little more need be said. Small is beautiful, but if it is so small as to be incredible for its responsibilities, we are not really talking about the facilitation of scientific input à la Rothschild.

If your correspondent, wish to gain some insight into operational realities, as against their structural theories, they should refer to Professor Shuster's blistering letter on the debate launched by the book in the *British Medical Journal*, dated May 20, wherein writing as "a member of the Chief Scientist's panel of advisers" he used such terms to describe the organization of scientific advice as "dubious Whitehall farce", "fraudulent" proceedings and "ghost committees".[1] So far, there has been no doubt. How is it that the Brunel champions missed this kind of evidence? My modest plea for a complete review of the present situation is but a little whisper in comparison.

Professor Whitehead's remarks about the uncertainty within the DHSS as to who commissioned the two Ks' survey was checked, as were the other facts by personal interview and not telephone inquiries. It is an interesting commentary which may give some thing to the confusion in the *THES* article between the apparent assumption that the Research Management Division is part of the CSO and the actual fact, which has been glossed over, that these are two separate entities. It also demonstrates that the process of commissioning research is not controlled by the Chief Scientist.

Again, it is the group and not just Professor Whitehead which has criticized the Research Liaison Group idea as being inadequate because it is not part of a comprehensive overall policy related to today's needs for rationalization. The Wing report has not been published but it is understood authoritatively that the terms of reference did not take in the key factors of the supervision of the RLGs or who decides the allocations and by what criteria. Further, it is nonsense to assert that a group of RLG advisers constitute an organization of the kind Rothschild had in mind. Of all the manuscripts I have dealt with as general editor and publisher (making up about 100 books in all), I have never known any which have been vetted by so many of the people concerned as Wilm Heal's—and this includes the key people at the DHSS.

In his final column Professor Kogan, I suppose, must be writing for your undergraduate social administration readers about the difficulties of the inter-relationship of research and Government. As is noted in the Introduction to *Five Years After*, the point of departure for the group was the Hertford College Meeting in Oxford in 1974, reported in "Positions, Directions, and Movements" (OUP for NPHT 1974), in which these difficulties were ventilated, recognized and weighed (see particularly the Deputy Chief Medical Officer's essay and its reference to the eloquence of a particular Under-Secretary Brundes—page 117) on this point.

The inherent difficulties were taken as hypotheses in the working party's deliberations. Pace the two Ks' linguistics (would they wish us to have taken a complicated view?) the whole thrust of *Five Years After* is positive and sympathetic to the problems of the DHSS but seeks to ensure a more satisfactory contribution from scientists to Government policy and operation which, after all, was a major objective of the Rothschild thesis. The suggestions provide for policy studies and the line of the book (see pp.78 etc) is very much that of the final paragraph of your main editorial dated June 16.

I hope, however, undergraduates will not take too seriously the alarming misconception of the *THES* article that the DHSS is "open gate enjoyment of the field authorities, the NHS and Local Authority Services". I cannot think of anyone I know in these field authorities who would agree that such a concept, in the OED sense, could ever rule; and, thankfully, I believe it would be difficult to find anyone at the "top of the office" in the DHSS who would either.

The ghost of Mr Heeau clad in his undertakings on the floor of the House, stands like Cerberus against the infiltration of that idea and the governance of the NHS. An important point in *Five Years After* is that one of the forums necessary should be to have in the system opportunities for the operational authorities to have a say in what research should be sponsored and financed. The slavish application of the customer/contractor principle which you attacked in your first editorial (*THES* June 23) needs to be specially pinpointed.

I believe that public discussion and critiques of the present state of health services research are desirable. I do not want to give the impression that I am one of those who, the editor of the *Lancet* believes, might say that the Brunel enquiry was a "kiss of death". The report of the study was not regarded as important and it changed nothing fundamental. It might have brought temporary comfort to some, but survival of the present arrangements can never be practical politics and not only because it is not according to Rothschild.

I have also every faith in the ability of top civil servants to see mistakes in organization and eventually to correct them: but the bureaucracy is such that in certain circumstances, not infrequently, they do have to have their attention drawn to fundamental errors by groups externally sponsored and financed. In today's circumstances it seems to me absolutely necessary for there to be the kind of independent probing enquiry, which the working party has carried out and reported on in *Five Years After*.

Yours faithfully,
GORDON McLACHLAN,
The Nuffield Provincial Hospitals Trust,
3 Prince Albert Road,
London NW1 7SP.

Vaizey and Halsey

Sir,—I always find my friend Chelly Halsey's eloquent but allusive style captivates me, while to some degree obscuring the message. Since he refers to me twice in his article on Encounter, may I perhaps be permitted a few observations to try to see what he is getting at?

In the first place, I think it is not true that my preoccupation with universities in the early 1960s was about Oxford. As a matter of fact, Dr Halsey left Birmingham, not exactly an Iron Age encampment or an Angels-type slum, for the University of Oxford in the early 1960s, and almost immediately afterwards I left the University of Oxford for Brunel, which is not exactly a rubbish city enclave of idyllic rural beauty. My concern throughout the 1950s and 1960s was for the development of a unified system of higher education which would promote equality and high standards, and this remains my concern. His view of himself as the provincial outsider is a bit weird.

Next, he takes as evidence of my shift to the Right—a shift which I would in no sense seek to deny—the fact that I am now in the House of Lords, together with other Right-wing figures like Bill Wedderburn and Michael Young. He forgets, perhaps, that I served my turn on the Education Committee of HEA and on various other bodies which have sought to implement Halsey-type reforms; in other words, we do try our best to help in various capacities as they arise.

The basis of my shift to the Right is not, I fear, the attractions of a corner, but the fact that I believe that the arguments that I used to support social democracy in the 1950s and early 1960s were incorrect in theory and have proved fallacious in practice. That view is, of course, open to attack.

But it is a bit hard, having spent 12 years making trying to create a four-year multidisciplinary sandwich course in the social sciences in a technological university, to be accused of mystical elitism by a professor in the University of Oxford and a fellow of one of its more affluent ivory towers. But perhaps Chelly's elusive allusions did not imply that?

Yours sincerely,
VAIZEY,
Department of Economics,
Brunel University.

Social work practice

Sir,—We are grateful for the two references (*THES* May 26 and June 30) to our pamphlet "Preparing for Social Work Practice", which comments critically on the Council for Education and Training in Social Work's Consultative Document 1.

It seems unfortunate, however, that each time you have given disproportionate emphasis to just one five-sentence paragraph in our 32 page paper, in which we compare the CCETSW document to the Black Papers and the so called Gould "report". Perhaps we could therefore make clear that in our pamphlet we are primarily concerned to examine some very serious philosophical, theoretical, educational and practice issues raised by Consultative Document 3, and to analyse its proposals in a broader historical and especially contemporary context.

We hope that your readers will judge for themselves whether we have succeeded in doing this by reading the pamphlet as a whole.

Yours sincerely,
BERNARD DAVIES,
Senior lecturer,
(on behalf of all departmental staff),
Department of applied social studies,
University of Warwick.

Cambridge salaries

Sir,—In the light of your report "Universities cry on senior staff salaries" (*THES*, June 23), readers might like to know that details of all such salaries in the University of Cambridge are published in the *Reporter* (Cambridge University Press, weekly in Full Term, 15p).

Yours faithfully,
A. W. F. EDWARDS,
Senior pro-proctor,
University of Cambridge